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CAS REFLECTION IMPLEMENTATION AT SIX INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME SCHOOLS IN TURKEY

A MASTER'S THESIS

BY

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THE PROGRAM OF CURRICULUM AND INSTRUCTION
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of

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by

Stirling Perry

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GRADUATE SCHOOL OF EDUCATION

CAS Reflection Implementation at Six International Baccalaureate Diploma Programme Schools in Turkey

Stirling Perry

June 2015

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Curriculum and Instruction.

Asst. Prof. Dr. Robin Ann Martin (Supervisor)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Curriculum and Instruction.

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Approval of the Graduate School of Education

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ABSTRACT

CAS REFLECTION IMPLEMENTATION AT SIX INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME SCHOOLS IN TURKEY

Stirling Perry

M.A., Program of Curriculum and Instruction
Supervisor: Asst. Professor Dr. Robin Ann Martin

June 2015

The Creativity, Action, Service (CAS) program is a required experiential learning element of the International Baccalaureate (IB) Diploma Programme (DP) curriculum. As a means of connecting their experiences with learning, students are required to reflect on their CAS activities. If reflection is not implemented effectively, then students are less likely to internalize the lessons they learn from their experiences. This study examined the ways in which CAS program reflection was implemented at six IBDP schools in Turkey. With a research colleague, I visited the six schools, gathering data from interviews with students, teachers, and administrators, as well as collecting a number of documents related to their CAS programs. According to other research, effective reflection should be implemented using a variety of methods, should occur before, during, and after an experience, and should involve regular feedback from advisors/teachers. The results of my research show that most schools rely primarily on simplistic forms, which do not encourage

much authentic reflection, such as periodic essays or verbal interactions between advisors/teachers and students, which can be effective if done correctly. Some aspects of reflection implementation at many schools do not align with the recommendations of prior research. As such, I have made certain prescriptions as to how reflection should be implemented, based on my own and others' research.

Key words: creativity, action, service, CAS, International Baccalaureate, IB, Diploma Programme, DP, reflection, implementation, Turkey, school, experiential learning

ÖZET

TÜRKİYE'DEKİ ALTI ULUSLARASI BAKALORYA DİPLOMA PROGRAMI OKULUNDA CAS YANSİMA İSLEMİ

Stirling Perry

Yüksek Lisans, Eğitim Programları ve Öğretim
Tez Yöneticisi: Yrd. Doç. Dr. Robin Martin

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Yaratıcılık, Faaliyet Hizmet (CAS) programı, Uluslararası Fakülte Diploması (IB) Diploma Programı (DP) müfredatının zorunlu deneysel öğrenim öğesidir. Öğrendiklerini deneyimleri ile ilişkilendirme şeklinde olmak üzere, öğrencilerin CAS faaliyetleri üzerinde kendilerini yansıtmaları gerekmektedir. Eğer yansıtma etkili şekilde yürütülmez ise, bu, öğrencilerin deneyimlerinden öğrendikleri dersleri özümsemelerinin çok daha nadir olacağı anlamına gelir. Bu çalışmada CAS programının ifade edilişinin uygulandığı Türkiye'deki altı IBDP okulundaki çeşitli yollar araştırılmıştır. Meslektaşım Dr. Robin Martin ile CAS programları ile ilgili belirli sayıda belge toplamakla birlikte altı ayrı okulu ziyaret edip, öğrenciler, öğretmenler, ve yöneticilir ile mülakatlar yapıp veri topladım. Diğer bir araştırmaya göre de, etkili yansıtma deneyimden önce, deneyim esnasında ve deneyimden sonra olmak üzere çeşitli yöntemler ile yürütülmeli ve danışmanlar/öğretmenlerden düzenli olarak geri bildirim almayı içermelidir. Araştırmamın sonuçları göstermiştir ki bir

çok okul daha etkili olan düzenli aralıklarla yazılan makaleler ve doğru yapıldığı takdirde çok etlili olabilecek danışman/öğretmen ve öğrenci arasındaki sözlü iletişimden oluşan özgün yansıtmayı desteklemeyip, en basit şekildeki yöntemleri kullanmaktadır. Birçok okuldaki yansımanın yürütülmesinin bazı yönleri daha önceki araştırmaların önergelerine bile uymamaktadır. Böyle olunca da, benim ve diğerlerinin araştırmalarını temel alarak yansıtmanın nasıl yürütülmesi gerektiği konusunda bazı talimatlar hazırladım.

Anahtar Kelimeler: yaratıcılık, faaliyet, hizmet, CAS, Uluslararası Fakülte Diploması, IB, Diploma Programı, DP, yansıtma, yürütme, Türkiye, okul, deneysel öğrenim

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

Introduction

This study will focus on reflection practices within the Creativity, Action, Service ("CAS") program as it is implemented at six schools in Turkey. CAS is a central component of the International Baccalaureate ("IB") Diploma Programme ("DP") for which students are mandated to pursue activities and service learning outside the purview of traditional academics. In addition to planning and executing various relevant activities, students are required to reflect on these activities as a means of actuating, integrating, and internalizing the social-emotional (SE)—and sometimes academic—development. The present research suggests that there are some existing reflection practices which are not necessarily effective as revealed by comments from students, teachers, and administrators. After assessing the evidence of advantages and disadvantages of reflection practices at six different schools, I will make recommendations for improving reflection practices.

Background

The IB is a curriculum that was developed and adopted in 1968, in conjunction with several international schools, at the International School of Geneva (About the IB, n.d.). The advent of the IB came about because secondary and university educators were faced with a dilemma: with so many students attending university outside the country where they received a high school diploma, the universities were not able to fairly and accurately assess an applicant's merits without the ability to verify the

quality and breadth of the student's high school curriculum. It was clear that a curriculum was needed to establish universal standards and assessments with which universities could make informed decisions about applicants. Furthermore the IB is a decidedly idealistic curriculum, with a mission statement that states, in part, "**The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect" (Mission, n.d.).**

The IB consists of three curricula: Primary Years Programme ("PYP") for primary (grades 1 to 5), Middle Years Programme ("MYP") for middle school (generally grades 6 to 10), and the DP, for high school (grades 11 to 12) students. The DP—the context of this research—is itself a comprehensive and challenging curriculum which aims to develop students who are autonomous, critical thinkers: "to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect" ("Diploma Programme").

Perhaps it goes without saying—though it is often forgotten—that education does not occur in a vacuum, nor is it a means in itself: it is meant to prepare young people for future challenges and opportunities not just in academic realms, but social and personal realms as well. John Dewey, in his seminal monograph, *How We Think* (1910), gives one variation on his philosophy of the purpose of education:

> [T]o cultivate deep-seated and effective habits of discriminating tested beliefs from mere assertions, guesses, and opinions; to develop a lively, sincere, and open-minded preference for conclusions that are properly grounded, and to ingrain into the individual's working habits methods of inquiry and reasoning appropriate to the various problems that present themselves. (p. 28)

His conception of education was one in which the mind is trained to analyze novel situations and solve the problems, not just of the business or academic worlds, but the kinds of problems that confront every human trying to find meaning to any degree in this world. The IB recognizes this and thus takes great pains to emphasize the importance of a holistic education—one that includes the kind of experiential learning that occurs outside the classroom. Indeed, the DP curriculum encourages students to make connections between the skills and knowledge being developed within academic subjects, and the "real world" where those skills and bodies of knowledge are meant to be applied.

Toward that end, at the core of the IB curriculum are three essential components: the Extended Essay—an original research thesis of 3000-4000 words; Theory of Knowledge—a course on epistemology, examining what a person knows and how she knows it; and Creativity, Action, Service—a broad category which encourages students to pursue activities outside the classroom. According to the CAS curriculum guide:

> Creativity encourages students to engage in the arts and creative thinking. Action seeks to develop a healthy lifestyle through physical activity. Service with the community offers a vehicle for a new learning with academic value. The three strands of CAS enhance students' personal and interpersonal development through experiential learning and enable journeys of self-discovery. (Creativity, service, action guide, 2008).

Students engage in CAS activities throughout the course of the DP curriculum—during (typically) the final two years of high school. Common activities include painting or music (Creativity), playing sports or participating in regular physical activity (Action), and community service programs working with less-fortunate individuals or other under-serviced community partners (Service). Students are encouraged to see these activities not as separate from academics, but as another

component essential to their education—extending and complementing what they learn within the classroom:

> CAS enables students to enhance their personal and interpersonal development through experiential learning. At the same time, it provides an important counterbalance to the academic pressures of the rest of the Diploma. [It] should be both challenging and enjoyable, a personal journey of self-discovery. Each individual student has a different starting point, and therefore different goals and needs, but for many their CAS activities include experiences that are profound and life-changing. (Creativity, action, service guide, 2008)

Before 2010 there was a minimum number of 150 hours that the students were required to complete by the end of the DP, since that time the assessment criteria became somewhat more flexible—and intentionally ambiguous: though there is no strict threshold for hours complete, students are required to provide evidence that they are pursuing activities on a regular basis—three to four hours a week is recommended. Furthermore, it is important that students attempt to balance their activities more-or-less equally across the three categories of Creativity, Action, and Service. Athletically talented students, for example, are encouraged to participate in artistic and service activities, and students who already participate in the Arts are encouraged to pursue physiological development. (It should be noted that Action includes not just athletics, but activities that promote general physical health, such as nutrition.)

Beyond achieving minimum scores in a student's academic subjects, the successful completion of CAS (along with Theory Of Knowledge and the Extended Essay) is a requirement for receiving an IB Diploma. Along those lines, CAS delineates outcomes for students to achieve in order to "pass" CAS. The initial outcomes (based on the 2008 CAS guide) were as follows: students are expected to have "increased their awareness of their own strengths and areas for growth," "undertaken new challenges," "planned and initiated activities," "worked collaboratively with others,"

"shown perseverance and commitment in their activities," "engaged with issues of global importance," "considered the ethical implications of their actions," and "developed new skills" (Creativity, action, service guide, 2008). As of 2015, these were slightly condensed into seven outcomes—combining *undertaken of challenges* with *developed new skills* into a single outcome.

As one can see, the intended outcomes are quite broad in scope, and purposely ambiguous. Most educators will concur that these are outcomes that any typical school curricula pursues implicitly through extracurricular activities (sports, service learning, etc.)—almost all of which would be considered suitable as CAS activities. However, the IB is very conscientious in emphasizing the importance of CAS to support the intellectual and holistic development of each student: CAS is not intended merely as a checklist of activities performed, but an essential component of the lives of students—encouraging students to realize and value the kind of learning that goes on outside the classroom.

Simply planning, executing, and attending CAS activities regularly—and maintaining a record of the activities—is not sufficient: the IB requires that students *reflect* on their experiences to recognize and internalize the lessons and recognize skills that they developed during the course of the activity. Indeed, research suggests that reflection is essential to turn service into learning (Wilczenski & Cook 2009). Reflection allows a person to establish cognitive connections, to make explicit the lessons that would otherwise be implicit, to have realizations about the value of such experiences, and to recognize how one has grown and developed. Dewey (1910, p. 209-210) also wrote of the importance of reflection:

> The working over of a vague and more or less casual idea into coherent and definite form is impossible without a pause, without freedom from distraction. We say "Stop and think"; well, all

> reflection involves, at some point, stopping external observations and reactions so that an idea may mature. Meditation, withdrawal or abstraction from clamorous assailants of the senses and from demands for overt action, is as necessary at the reasoning stage, as are observation and experiment at other periods… A silent, uninterrupted working-over of considerations by comparing and weighing alternative suggestions, is indispensable for the development of coherent and compact conclusions.

Dewey is here discussing reflection specifically as a part of the "formal steps of instruction," in a classroom, but it is no less true for the lessons that one learns in the daily experiences of life. Simply playing sports or volunteering—while admirable activities in themselves—are less likely to yield insights when such activities are not accompanied by some form of reflection. Reflection need not be anything as formal as a diary: merely stopping and thinking actively about the activity is a type of reflection; or sitting around with one's teammates and discussing the dynamics of a match; or writing a blog entry about a volunteering experience. There is a common refrain among these reflective activities: they allow one to consider not just *what* happened, but *why* and *how* it happened. The *why's* and *how's* are key to developing insight into how certain methods, perspectives, and relationships can lead to either success or failure in a given situation. Taking it as *a priori* that people seek success rather than failure, it further follows that they would attempt to find the best methods for success. Reflection, then, is the process of mindfully analyzing past experiences toward to end of discovering which methods were successful, and why they were successful—and, furthermore, why certain methods did not lead to success. It was Socrates who, perhaps apocryphally, said that, "The unexamined life is not worth living." What is it to "examine" but to look at one's life purposely? To reflect on one's experiences with the goal of understanding how those experiences can inform one's choices in the future?

According to the guidelines established by the IB, the basic reflective questions to be asked of any CAS activity are the following: What did I plan to do? What did I do? What were the outcomes, for me, the team I was working with, and others? (Creativity, action, service guide, 2008). Of course, as a student answers these questions, more complex issues will certainly arise, and the student is encouraged to pursue these issues within the reflective activity. Reflection can take many forms: public or private, individual or shared, objective or subjective. Furthermore, the IB encourages students to use a variety of reflection methods—writing or journaling is by no means the only method. Simply having a group discussion (with an educator-moderator ideally) after an activity is often an effective method of reflection. Other methods include: "…present[ing] their activities orally to peers, parents or outsiders. They can make scrapbooks, photo essays, videos/DVDs or weblogs. They can use journals or make up varied portfolios. Or they may sometimes simply reflect privately…" (Creativity, action, service guide, 2008).

The IB sees CAS as central to its mission and philosophy of a holistic curriculum developing the whole learner—both in body and mind, intellectually and morally. Reflection is the central means by which students are able to internalize these kinds of developments. Ideally, with reflection the student is able to connect the various strands of his knowledge and skills being developed both within and beyond the classroom.

Problem

In my own experience as an IBDP educator, I have been witness to, again and again, students complaining about "being forced" to do "useless" reflections for CAS. "Why do we have to do this?" is a common refrain from DP students. What's more,

teachers and CAS advisors are continually employed in cajoling, pestering, and otherwise demanding students to "complete" their reflections such that they do not fail CAS and, consequently, fail the DP. Teachers furthermore have often reported that the quality of CAS reflections leave something to be desired: it often appears that students are doing reflections perfunctorily and without actively engaging in the kind of reflection that leads to personal insight and growth—the very *raison d'etre* of CAS.

Additionally, in collaborating with Dr. Martin on her research about CAS implementation, preliminary analysis revealed many IB students expounding upon their strong dislike of "doing" reflection for CAS activities or projects as they are typically implemented. Again and again, having spoken to students from a number of different schools, there was a common refrain that the reflection process within CAS is a burden; that students do not perceive any value in reflection other than as a requirement for an IB diploma; and that they wished the reflection process were different. Even at the school where I teach, student reflections have become an issue: teachers and the CAS coordinator have had to rebuke students a number of times because of the poor quality of their reflections. The IB, in fact, examined some of our students' reflections and deemed them to be of inferior quality—suggesting that some students might be putting their graduation at risk. This was, of course, a serious issue for the educators of my school; but despite our best efforts, we have not managed to convince students of the intrinsic value of reflection as a means of internalizing knowledge and skills, and thus to stimulate students to have more appreciation for the reflection process.

In short, CAS reflection, as typically implemented at IB schools in Turkey, is not functioning as intended by the DP curriculum: students dislike doing it, and teachers

are disappointed with the student products. From an educational standpoint, this is quite a serious issue. Reflection is a core curricular component in the CAS program—the means by which students connect experiential learning to both academic learning and self-knowledge. If it is the means by which a person turns service into learning (Wilczenski & Cook 2009), then there is a real possibility that students are not accessing the full benefits of the CAS program. With CAS at the core of the IB diploma, this raises the possibility that many students are not fully achieving the aforementioned aims intended by the IB: "to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect" (Mission, n.d.). Is CAS reflection doomed to be a burden and a bane to students and teachers alike, or are there other ways of implementing reflection that can actually benefit students, while being less of a perceived burden?

Purpose

Using multiple case study design and selectively inviting six IB schools to participate in the study, this research was engaged for three primary purposes. First: to understand and explicate how the CAS program—with a focus on the reflection process—is implemented at six IB schools in Turkey. Second: to identify and understand attitudes, opinions, and perceptions about the process of CAS implementation from various stakeholders—student, teachers, and administrators. These first two steps includes the identification of strengths and weaknesses of the CAS programs—some schools as will be shown, were more successful than others in particular areas of CAS and supporting students' approaches to reflection. Identifying strengths and weaknesses furthermore points toward areas for the third

purpose of this research: to discover more effective practices of reflection not only within CAS programs, but within any kind of similar service-oriented or experiential learning curricula around the world. Having examined detailed feedback and reflection samples from six schools, one can make recommendations for the improvement of CAS program implementation and student reflection processes at IB schools.

Research questions

1. According to stakeholders' perspectives, how is the reflection process implemented at six IB schools in Turkey?
2. What trends emerged across schools that indicate strengths and weaknesses of the CAS reflection process?
3. To what extent do the media and methods that are being used for CAS reflection support the reflection process?
4. To what extent does ManageBac support reflection?

Significance

As it stands, there is a considerable dearth of research about CAS not only in Turkey, but around the world. Nor is there much research about service learning in general in Turkey. The secondary educational system is focused on a narrow set of subjects which are tested on the national entrance exams for university. There is such an emphasis on this exam, in fact, that most students during their senior year of high school will actually stop participating in extracurricular activities altogether in order to focus on preparing for the exam. Extracurricular activities thus have little or no

bearing on university entrance, nor do students see much efficacy in those activities beyond enjoyment. As a consequence, educational researchers in Turkey have done little research about service learning or other extracurricular activities, as related to the school curriculum. Of course, this is partially owing to the fact that the DP is relatively new in Turkey: out of thirty-four DP schools in Turkey (as of June 2014), thirteen have adopted the program since 2010, and a total of twenty-eight since 2002 (Information for Turkey, n.d.). As a result of this relatively short history there has not been a preponderance of research about the IB or DP in Turkey. Consequently there is an information gap in terms of how CAS—and specifically the reflection process—is being implemented at the various DP schools.

The IB supplies certain guidelines for developing and maintaining CAS programs, but—as often is the case—the IB does not want to limit schools by enforcing a strict and singular curricular regime on the many schools that operate in diverse cultural contexts around the world. The organization purposefully gives schools a lot of latitude in how they specifically implement the CAS program (as well as the other programs within the IB curriculum). CAS implementation at schools in Turkey must first be understood before identifying factors that influence student attitudes toward the reflection process.

This research will be a step forward for developing the CAS curriculum in Turkey. It can be used by both teachers and coordinators to help students develop better reflection practices, and thus receive more intrinsic benefits from the CAS program. Other researchers will be able to use this research to understand the implementation and perceived outcomes of the CAS program. In short this research will help to fill the gap of experiential learning research in Turkey and the world at large.

Limitations

The primary limitation of this study is the number of schools where stakeholders were interviewed. The geographic and logistical difficulties of Turkey allowed for visits to only six DP schools (out of the total of thirty-four). However, these schools are nonetheless representative of I.B. schools that are leading the way for the I.B. in Turkey. Furthermore, these six schools are located in the more affluent, Westernized, and larger cities of Turkey; there are a few IB schools in smaller communities, or in eastern Turkey, that would perhaps contribute unique voices to future research. On a personal level, I teach in the Diploma at an IB school in Turkey, so my perspective is partially informed by my experience with the students, and other stakeholders, at my school. Also I come from a Western, developed educational context (the United States) and therefore that context might influence the collection and interpretation of data.

A further limitation of this study is temporal: Our research team was only able to visit each school for one day. Although I gathered many interviews from different stakeholders, the data would perhaps be more robust and comprehensive if I had been able to interview individuals at multiple times during the school year.

Finally, the process of choosing schools for the study was purposeful sampling wherein well-established IB schools with strong CAS programs were identified based on the recommendations of other schools.Although the schools are still representative of the IB and CAS in Turkey, a more randomized selection of schools would perhaps produce more representative results. However, for the purposes of this study, I was especially interested in programs which had had the time and resources to more fully develop their CAS programs.

Definition of terms

IB: International Baccalaureate. The non-profit governing body of the IB. There are more than 3000 schools around the world that have implemented IB s at either the primary, middle, or secondary level.

PYP: Primary Years Programme. Within the IB, the PYP is the curriculum designed for students in primary school—typically years 1 to 6 of a student's education.

MYP: Middle Years Programme. Building upon the PYP, the MYP is the curriculum designed for students as they prepare for matriculation into the DP—typically years 7 to 10.

DP: Diploma Programme. The capstone of the IB, the DP gives students the opportunity to graduate with a high school diploma that is recognized at universities throughout the world.

Service Learning: Activities in which students engage in some kind of service to individuals or organizations that are in need. This service is coupled with some means of reflection and/or incorporation into an academic curriculum whereby students can internalize the lessons and experiences from their service.

CAS: Creativity, Action, Service. CAS is a curriculum within the DP that requires students to pursue three types of activities: Creativity—personal expression and other creative endeavors; Action—activities that promote physical health; and Service—service learning activities devoted to helping other groups, individuals, or organizations.

CHAPTER 2: REVIEW OF THE LITERATURE

Introduction[1]

Before looking at CAS and reflection specifically, it is instructive to examine more general trends concerning social and emotional learning (SEL). SEL is an important component not just within the confines of CAS, but more generally in the values and philosophy of the IB. Indeed, the Learner Profile—which applies to the full range of IB curricula (PYP, MYP, and DP)—includes among its ten characteristics "open-minded," 'principled," "risk-takers," "caring," and "reflective." These are the kind of characteristics that educators are trying to instill in young people through social and emotional development. Consequently, the chapter will begin with a look at the significance of recent findings about SEL, then move into a discussion about service learning. The remainder of the chapter examines the IB's approach to CAS, along with an extensive review research about how reflection can be approached within experiential settings of SEL interventions, with service as a focus.

Social-emotional learning (SEL)

SEL is a relatively new concept in the long history of pedagogy. The Collaborative for Academic, Social, and Emotional Learning (CASEL)—the foremost organization for SEL research in the US—has settled on an elegant and effective formulation of SEL:

> [It] is the process through which children and adults acquire and effectively apply the knowledge, attitudes and skills necessary to understand and manage

[1] Though this study occurred inTurkey, only research in the English language was reviewed due to the inability to review research in Turkish.

> emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions. (SEL Defined)

The outcomes specified by this definition clearly fall outside the purview of a traditional academic curriculum, despite the self-evident fact that the ability to manage emotions, achieve goals, maintain relationships, and make good decisions are part and parcel of what it means to be a functional adult in any professional or personal role within society. Yet even a cursory understanding of pedagogical history shows that SEL has not received much attention within traditional curricula of secondary schools.

SEL and academic success

Although SEL encompasses a vast landscape of methodologies, this current study is examining the kind of SEL that occurs within CAS—namely participation within the arts ("Creativity"), school and club sports ("Action"), and service learning ("Service"). Furthermore, in spite of the overwhelming popularity and long history of students in high school sports and arts relative to participation in service learning it seems more useful to focus on the relatively recent research into service learning and its relationship to academic and social-emotional learning.

Zins, et al. (2004) have outlined a preponderance of this evidence in their monograph on the subject. They begin their book with a direct assertion: "Schools will be most successful in their educational mission when they integrate efforts to promote children's academic, social, and emotional learning" (p. 3). SEL is defined—in a similar fashion to that of CASEL—according to the authors, as "the process through which we learn to recognize and manage emotions, care about others, make good decisions, behave ethically and responsibly, develop positive relationships, and avoid negative behaviors" (p. 4). These competencies and skills are, of course, essential

toward being successful not just in the context of school or work, but in the general arena of the human condition: introspection, empathy, ethics, logic, self-control—these are fundamental to the existence of a normal, peaceful, and prosperous human society. As Johnson and Johnson (2004) argued later in the same book, self-actualization is the key to this: "A person's interpersonal effectiveness largely determines the quality and course of his or her life… Self-actualization is based on being aware of abilities and talents, applying them appropriately in a variety of situations, and celebrating their successful self-application" (p. 41).

There are many other studies that link SEL to academic success. Payton, et al., (2008), publishing through CASEL, provided a clear delineation of the benefits of SEL, based on a meta-analysis of three reviews of 317 studies involving 324,000 children from kindergarten to eighth grade, and from a variety of socio-economic backgrounds. Besides improving "students' socio-emotional skills, attitudes about self and others, connection to school, positive social behavior… academic performance… [and] conduct problems and emotional distress," the study also showed that students' academic performance improved by 11 to 17 percent (p. 4-6).

Wilczenski and Cook (2009) examined a number of publications and concluded that—rather than simply providing benefits beyond the academic realm— "social-emotional competence actually promotes resiliency and enables academic learning" (p. 7). The focus of the article is on the benefits of service learning for students with mental health problems—in other words, students who may have the intelligence but not the social-emotional capabilities to do well academically. Based on their analysis of a number of studies on the subject, the authors stated that "the documented benefits of service learning found with the general population of students support an

optimistic view that the same benefits will accrue to students with mental health problems" (p. 12-13) because of three reasons:

> (1) deeper learning results because students are more engaged and curious about issues they experience in the community; (2) students find that they can better remember material that they learn within community contexts; and (3) learning is rooted in personal relationships and in doing work that makes a difference in people's lives. (p. 5)

With regards to the present study, the authors are very clear that service learning is "a form of experiential education where learning occurs through cycles of action and reflection…" (p. 5). In other words, the aforementioned social-emotional benefits of service learning are achieved best through the process of reflection: "Reflection turns service into learning" (p. 5).

Celio, Durlak, and Dymnicki (2011) conducted a meta-analysis of 62 studies involving 11,837 high school and college students (in both control and experimental groups) regarding the effects on five outcome areas: "attitudes toward self, attitudes toward school and learning, civic engagement, social skills, and academic performance" (p. 164). Unsurprisingly, data from the 62 studies show that—compared to control groups—participation in service learning has a significant positive impact in all five outcome areas (p. 174-5). Interestingly, the effect is strongest in the area of academic achievement, with a mean effect size of 0.43, compared to an average effect size of 0.28 for all outcome areas. This further reinforces the fact that service learning can have a positive effect not only in social-emotional realms, but in academic realms as well.

The research of Celio, Durlak, and Dymnicki (2011) shows that making explicit connections between service learning and academic courses actually improves student outcomes in academic courses:

> Establishing clear goals for students and making explicit connections between service and learning has been linked in some studies to stronger student academic engagement and performance outcomes, larger increases in problem-solving skills, and improved learning and satisfaction with the program. Providing opportunities for students to transfer or apply what they have learned to multiple contexts has also been associated with improved learning outcomes. (p. 166-7)

The authors further posit that effective service learning programs give students opportunities to be successful in designing and leading projects: "…engagement in service learning has been a strong predictor of other positive outcomes, such as improving self-efficacy, becoming attached to school and community, valuing academics, and becoming more civically engaged in general" (p. 167). This reinforces one of the guidelines of the CAS program which advises that students take leadership positions in CAS—not simply completing tasks or projects assigned by teachers.

Furthermore, the authors cite research that argues "against mandatory service because the requirement may impede the internalization of prosocial attitudes and values and may prevent the development of a long-term commitment to act on these values" (p. 6). They suggest that students are more committed to the immediate and long-term outcomes of service learning if they do so for intrinsic as well as extrinsic reasons. This problematizes CAS as a requirement of the IB diploma: as a mandatory aspect of the diploma, are students achieving the inter- and intra-personal outcomes that are intended by CAS? If they are motivated merely by the fact that it is required, are they really engaged in true service-learning, or merely service as a requisite for other selfish outcomes? As of 2010, CAS eliminated the formal 150-hour requirement as a stipulation in the curriculum, replacing it with more general guidelines. Perhaps this has had an effect on student motivations, in that they are not necessarily "counting hours" so much as attempting to complete projects.

Service learning as a component of SEL

The name "service learning" itself gives some indication as to the nature and purpose of such activities: individuals are engaged in service not only for purely charitable motivations, but a means of learning as well: learning about oneself, learning about the world, and learning skills to be successful in the world. The S in CAS is, of course, for "Service"—community service or volunteering; helping individuals, groups, or organizations that have some sort of structural disadvantage. If community service needs to have an academic component to qualify as "service learning," however, then an argument could be made that service activities within CAS—which does not include an explicit academic component within its curricular purview—are not necessarily service learning, as it is formally understood. As a required component of CAS, is reflection sufficient to turn service into service learning, as posited by Wilczenski and Cook (2009)? One of the main purposes of this study is to begin to answer that question—are the ways that students reflect effective towards not only achieving the CAS outcomes, but in making *service* a *learning* experience as well?

Bringle and Duffy, in the introduction to their book, With Service in Mind: Concepts and Models for Service-Learning in Psychology (2006), look more closely at how and if service learning benefits both the volunteers and the target communities. They posit that service learning is "…unique in its intention to equally benefit the provider and the recipient of the service… Thus in high quality service-learning courses, no one is exploited and reciprocity exists so that the service providers (i.e., students) and service recipients each give and receive…" (p. 3).

Bamber, in a chapter from the book In Safe Hands (2008), also looks at the problem of who is actually benefitting from service learning: the volunteers or the recipients

of that service. They recognize that there are many "…[o]rganizations operating without evaluation of the impact on the communities they seek to serve. The 'Voluntourism' industry has been accused of being at best self-serving and at worst providing the students with life enriching experiences at the expense of people living in poverty" (Bamber, 2008, p. 144). Their analysis is relevant to CAS because of the nature of the kind of programs within CAS and the character of the participating IB students. IB students tend to be of a higher socio-economic order than the potential communities they would be serving. Additionally, such high school students obviously have limited time and resources to devote to service learning. In doing service learning, there is a possibility that programs could be value-neutral or even have a negative impact on the communities that they are serving—with only the student volunteers receiving psychological benefits of the service.

A key question that comes out of service learning is exactly how to extract learning from the experience of service—what and how does a 16-year-old learn from volunteering at a hospital? And, furthermore, how can educators assess that learning is taking place? Bringle and Duffy (2006) identify reflection as a key component of service learning:

> Engaging students in their communities through service allows them to examine critical issues related to motivation, learning, relationships, and development… The connections between the service activities and course content are facilitated through regularly engaging students in structured reflection activities as part of the course. (p. 3)

Reflection is vital to service learning specifically and SEL in general. It provides a cognitive bridge between the experience itself and the mind of the student, allowing the student an opportunity to build a sort of teleological structure around the experience. One focus of this current study, then, is to examine the extent to which CAS reflection is effective in facilitating the examination of these "critical issues."

Observing the methods of reflection being used and assessing the efficacy of those methods—based on reports from interviews and focus groups, as well as document analysis—can help educators to develop better methods for encouraging SEL within the CAS program.

In the second essay of the Bringle and Duffy's book, the authors Clary, Snyder, and Stukas (2006) describe the six functions that are served by "pro-social attitudes and behaviors:" *understanding* (of oneself, or others, of skills and abilities), *career* (contacts, job prospects), *values* (to develop and exhibit positive social values), *social* (developing social skills), *protective* (to assuage negative issues about the self), and *enhancement* (of one's self-image) (p. 6). Looking at just three CAS learning outcomes (in the 2010 curriculum guide), one can see how these functions align quite closely to the main themes contained within the eight learning outcomes. *Increased their awareness of their own strengths and areas for growth* promotes the functions of *understanding*, *protective*, and *enhancement*. *Considered the ethical implications of their actions* is centered on the function of *values* and *understanding*. *Worked collaboratively with others* certainly develops the functions of *values*, *social*, and *career*.

Werner (2006) discusses how individuals are motivated to do service learning. The two standard types are intrinsic—motivated by personal goals such as learning, ethics, and development—and extrinsic—motivated by external goals such as fulfilling academic requirements, burnishing one's reputation, or making professional contacts. Werner makes it clear what conventional wisdom suggests: that individuals with intrinsic motivations are far more likely to achieve successful outcomes in service learning. The CAS curriculum advises that students have as much "ownership" over projects as possible—that projects should be developed,

organized, and led by students. Based on his research, Werner agrees: "students need to feel as though they have had control over and impact on how the project was undertaken… [S]tudents can experience learned helplessness or lose interest in the activity if they lack control and do not feel a sense of psychological ownership" (p. 123).

Hidayat, Pratsch, and Stoecker (2009) concur with Werner's analysis of effective motivations. Based on an extensive qualitative survey of individuals at community organizations that have hosted many service learning students, the authors also suggest that intrinsically motivated individuals are not only better at providing service, but also better at learning from that service:

> Service learners must have a clear interest of their own in the project and a passion for the issues being addressed by the organization. Community organization staff believe that, when the service learner is intrinsically motivated, he or she will have a stronger commitment to do quality work. (p. 150)

CAS programs need to be examined to see to what extent students are organizing and taking "ownership" of projects.

The IB and CAS in schools

Students must "pass" CAS in order to graduate with an IB Diploma, though what it means to pass CAS is left up to the discretion of the individual schools. Primarily, the guide indicates that schools are to make a decision, based on a variety of evidence (documentation of activities, reflections, observations, consultations with the student, etc.) as to whether a student has achieved all eight outcomes: "All eight outcomes must be present for a student to complete the CAS requirement. Some may be demonstrated many times, in a variety of activities, but completion requires only

that there is some evidence for every outcome" (Creativity, action, service guide, 2008).

Looking at the eight CAS learning outcomes, one can see that there is overlap between the CAS outcomes and the outcomes explicated by Payton, et al. (2008): *working collaboratively with others* ("establish and maintain positive relationships" and "handle interpersonal situations effectively"), *consideration of ethical implications* ("demonstrate caring and concern for others"), and *plan and initiate activities* ("set and achieve positive goals"). Payton, et al., however, primarily examined programs dissimilar to CAS activities: typically, the studied programs are interventions, team-building, or other exercises targeted specifically at aiding the students involved. In so far as CAS targets social-emotional learning, the authors have shown unambiguously that CAS-type activities can have a powerful impact on students.

As CAS is intended to be integrated with the overall DP curriculum, it remains to be seen how well this is actually being accomplished at IB schools.

Kulundu and Hayden (2002) summarized the findings of a small-scale study of the CAS program with one international school. Through a series of surveys, focus groups, and interviews, the authors were attempting to understand the extent to which that particular school had been successful in achieving the CAS outcomes (at that time, known as "aims"). In the conclusion, the authors identify three issues which are vital for the effective functioning of a CAS program. First, "it became clear that further work was required in relation to preparation, insofar as an evaluation was needed of school and community resources, and an assessment of the needs of students, their community, and its environment" (p. 35). In other words, students and supervisors need to exert more effort in terms of understanding the

context of CAS activities (especially services in which they are just getting to know organizations that they have not previously encountered), and exactly how those activities are to be pursued. Second, in terms of student motivation, schools need to recognize CAS achievements through school news articles, certificates, assemblies or other strategies for celebrating student successes. The authors seem to suggest that, in addition to internal motivations, students also need external motivators. Thirdly—and relevant to the current study—"it was clear that planned periods of reflection were imperative, at both individual and group levels... Keeping a diary or journal would encourage the development of observation skills which would not only enable students better to understand those they serve, but also to help them to understand their own strengths and weaknesses" (p. 35).

Reflection as a central component of CAS

In this section I will look address the following questions: How is reflection defined in the scientific literature? How does it function in relation to service learning and SEL? What reflection practices are commonly employed at schools? What does the data indicate concerning the efficacy of different methods of reflection? How does the Diploma Programme approach implementation of reflection?

Reflection according to the 2015 CAS Guide

To begin, let's look at how the IBDP explains and incorporates reflection into CAS. The IB Programme as a whole utilizes a "learner profile" comprising ten "attributes... [that] can help individuals and groups become responsible members of local, national, and global communities" (Creativity, action, service guide, 2015, p. VII). The Learner Profile is not intended only for students of the DP, but for students at every level of the IB, from grade 1 through high school graduation. The Profile is

intended as a sort of moral compass, if you will, with which to guide educators as they develop curricula for IB students. The list of attributes concludes with "Reflective," elaborated by this narrative: "We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development" (p. VII). Reflection, for the IB, is a process of first thinking about one's experiences; then, based on that thinking, coming to an understanding of one's strengths and weaknesses; toward the goal, finally, of academic and social-emotional learning ("personal development").

The most recently published CAS guide—intended for students graduating in 2017—provides the following guidance for implementing reflection. The guide is very clear about the purposes of reflection:

> Reflection is central to building a deep and rich experience in CAS... Student learning is enhanced by reflection on choices and actions. This enables students to grow in their ability to explore skills, strengths, limitations and areas for further development. Through reflection students examine ideas and consider how they might use prior learning in new contexts. Reflection leads to improved problem-solving, higher cognitive processes and greater depth of understanding in addition to exploring how CAS experiences may influence future possibilities. (p. 26)

According to the Guide, reflection is a method of building a bridge between past experiences and future potentialities—a method of understanding how the successes and failures of the past—and one's strengths and weaknesses—can inform the decisions one will make in the future.

As Loughran (2002) suggests, "Experience alone does not lead to learning; reflection on experience is essential... Reflection on experience enhances learning through experience such that divergent rather than convergent learning outcomes are encouraged" (p. 35). What Loughran proposes is that reflecting on an experience allows a person to make connections with other experiences and ideas—producing

"divergent learning outcomes"—and to achieve understanding that can be applied beyond the limits of the original experiential stimulus.

There are four steps in CAS reflection that act as a sort of self-scaffolding exercise. First the student describes what happens—simple recollection of the events of an experience[2]. The second step delves into meta-cognitive processes—thinking about thinking: "students articulate emotional responses to their experiences"[3] Thirdly, the student is instructed to re-examine the choices and actions she made during the experience, with the goal of developing and increasing awareness of self and others. The final step is to ask questions about the experience—"people, processes or issues"—in order to "prompt further thinking and ongoing inquiry" (Creativity, action, service guide, 2015, p. 26-7). This last step is important as a means of connecting disparate CAS experiences into a larger narrative of personal growth. Making these connections is one key to reflection as an element of CAS: over the course of the DP, students will engage in a large variety of unrelated experiences. Reflecting on those experiences, then, is a sort of medium, if you will, or glue that can tie the experiences together. What commonalities, for example, can be found between practicing Aikido and volunteering in a children's Leukemia ward? Reflecting on these experiences—thinking about what happened, examining one's feelings, asking questions—one can indeed discover connections: the courage to pursue personal growth; the determination needed to develop personal skills; the ability to set goals and establish plans to achieve those goals. These are the kind of cognitive developments that reflection gives rise to.

[2] "Why did I make this particular choice? How did this experience reflect my personal ideas and values? In what ways am I being challenged to think differently about myself and others?" (p. 27)
[3] "How did I feel about the challenges? What happened that prompted particular feelings? What choices might have resulted in different feelings and outcomes?" (p. 27)

Importantly, the CAS Guide emphasizes that reflection definitely should *not* be expected for all activities. Rather, students "should identify moments worthy of reflection"—that is, during an experience, moments of insight, revelation, or growth[4]. The Guide suggests that forcing students to habitually reflect on experiences "is contrary to the purpose of reflection in CAS." Rather, "[It] is most meaningful when recognized as a personal choice. If the emphasis is on quantity with a required number of reflections... reflection becomes an obligation" (Creativity, action, service guide, 2015, p. 27). This was, notably, a suggestion that came in the newest CAS Guide published shortly after our current study was conducted.

Furthermore, the new CAS Guide emphasizes very strongly (using **bolded** text, which is almost absent in the rest of the document) that "**the form of reflection must take into account student choice**"—meaning students should not utilize the same method of reflection throughout their CAS tenure. This reinforces the idea that forced reflection is not effective reflection: "When overly prescribed, students may perceive the act of reflection as a requirement to fulfill another's expectations... By contrast, the student who understands the purpose and process of reflection would choose the appropriate moment, select the method and decide on the amount of time needed." In other words, the Guide suggests, students should be given considerable autonomy to choose the timing, method, and focus of reflections, such that "the student may be encouraged to be more honest, forthcoming and expressive, and develop insights..." As with other aspects of the DP, developing independent and autonomous learners is one of the most important outcomes: "The ultimate intention is for students to be independently reflective" (Creativity, action, service guide, 2015, p. 28).

[4] "a moment of discovery is happening; a skill is mastered; a challenge is confronted; emotions are provoked; achievement deserves celebration" (p. 27-8).

Reflection should not just be a diary; rather, the Guide suggests that it should take many forms:

> A student might take photographs while hiking and use these to reflect in writing. Two students could compose a song describing how they helped children. A student might dramatize a poem to capture a feeling of creative endeavour. A student could produce a short video summarizing a CAS experience. A group of students create a poster highlighting aspects of a shared experience. (p. 28)

This is important, according to the Guide, because "By encouraging students to choose forms of reflection that are personal and enjoyable, reflection becomes a means for self-discovery,"—that is, an intrinsic activity, rather than an extrinsic task to be fulfilled as a requirement for receiving an IB diploma (p. 28).

Reflection according to research

Celio, Durlak, and Dymnicki (2011) emphasize the importance of reflection as a curricular tool: "in order to provide the transformative link between the action of 'serving' and the ideas of 'learning'. Some studies have found that reflection is associated with students' experiencing increased self-confidence and engagement in school, greater civic knowledge and social responsibility, and more caring relationships with others" (p. 167). This data is particularly relevant to my research: the efficacy of reflection as a curricular tool seems well established by multiple studies. Wilczenski and Cook (2009) concur with the findings of Celio, Durlak, and Dymnicki, but they go one step further, arguing that reflection is that which turns service into learning:

> Service learning is a form of experiential education where learning occurs through cycles of action and reflection as students work with others in applying their knowledge to solve a community problem and, at the same time, reflect upon their experience to gain a deeper understanding of complex issues for themselves. Reflection turns service into learning. (p. 5)

Without reflection, it seems, there is a learning deficit: students are engaged in the activities, but they aren't necessarily receiving all the educational benefits of participating in the activity.

In terms of effective methods of reflection, the previous CAS Guide (published in 2008 for the 2010 graduates) utilized research from Eyler, et al. (1996) and Reed and Koliba (1995). These researchers also claimed that a variety of reflection techniques can be employed according to a student's preference and the type of related activity: video, essay, presentation, speech, photo essay, scrap book, group discussion, and one-on-one discussion, among many other suggestions. These techniques allow for the possibility of more meaningful reflection because a student can choose the method and develop it in such a way as to bring more depth to the reflection process.

CAS Reflection at schools typically occurs primarily through the medium of ManageBac—an online curriculum support tool designed specifically for the DP. One limitation of the CAS reflection protocol within ManageBac is the lack of clarity regarding the difference between simply logging an activity into the portfolio, and actually engaging in meaningful reflection about that activity. Prior to the activity, a student writes an overall summary of the activity, including stated personal goals and intended learning outcomes (as per the eight learning outcomes of CAS).[5]As the student participates in the activity (say, attending a guitar lesson) she records a "reflection" for each participation session. ManageBac refers to these records as "reflections," but it is perhaps a misnomer: students are mostly just recording what happened—as opposed to engaging in meaningful reflection about the activity. De Bruin, et al. (2012) studied the reflection portfolios of 37 eleventh-grade students;

[5] In the context of CAS, an "activity" can be understood to be only a single event, or an entire project requiring many sessions. So, for example, "learning to play the guitar" is an activity, within which the student will keep a record of all her practice sessions, classes, performances, etc.

they found that meaningful reflection was, in fact, a rare occurrence: “On average, one-fifth (19.5%) of the paragraphs in a portfolio contained reflection, and paragraphs with deep reflection were hardly found (0.8%).” What this data seems to show, reinforcing the suggestions of the CAS Guide, is that having a regime of regularly required reflections limited to a written journal has little efficacy in terms of developing actual, meaningful reflection in students.

Harland and Wondra (2011) compared the quality and depth of reflections of pre-service education undergraduates between a control group of students (n=24) that completed reflections on paper (related to their student teaching experiences), and a similar experimental group (n=43) that completed the same kind of reflections using a blog. Each entry for both groups was coded according to the depth of reflection—*nonreflection, understanding, reflection, or critical reflection*—that is, to what degree a reflection shows, as suggested in the CAS Guide, that a student reveals a thought process examining, assessing, and/or asking questions about an experience, as opposed to simply a recounting of events. Based on these evaluations, the investigators determined that the blogging reflections showed a greater depth of reflection. Interestingly, the bloggers wrote, on average, 35% fewer words, yet showed a higher degree of reflective thinking. This suggests that reflections composed digitally can be both more effective and more efficient. ManageBac contains a system for uploading written reflections. However, in light of the recommendations in the CAS Guide, a school should not limit students to the ManageBac reflection system.

In the ManageBac system, CAS students receive feedback on their written reflections from teachers and advisors. The purpose of this feedback is threefold: to help students write better reflections in the future, to guide students to better insights of

past experiences, and to help students prepare for future experiences. Dekker, et al. (2013) analyzed the language of feedback on reflections to determine better ways of giving feedback to students, looking specifically at the *format, focus,* and *tone*. They concluded that the most effective type of feedback—that is, feedback that "stimulate[s] students to reflect on a slightly higher level"—is formatted as a question, "positive in tone and tailored to the individual student's reflective level"—that is, written in a way that is unique to the depth of reflection a student is doing. A student who is only recounting experiences, for example, should be encouraged to think about feelings and choices made.

Janet Eyler (2002), among the forerunners in the field of service-learning and reflection research, has compiled and examined a body of research related to reflection in terms of what is being practiced and how effective is each practice. Although the empirical evidence is scant, according to the studies that Eyler reviewed, the findings suggest that "a focus on effective reflection is the key to strengthening the power of service-learning," which in turn "makes it possible for students to identify, frame, and resolve the ill-structured social problems that we must deal with" (p. 3). Her paper focuses on the idea that reflection should be more than just written journals. She identifies three social contexts for reflection—alone, with peers, and with community partners—and well as three times for reflection—before ("preflection"), during, and after an experience. Various methods of reflection are suggested for each time and each social context. For individual reflection during a service experience, for example, the traditional journal is effective; while a presentation is suggested for after-service reflection with community partners. The point is that at different times, and in different social contexts different methods of

reflection can be considerably more effective at bridging service- and academic-learning, and therefore achieving academic social-emotional learning goals.

Before beginning a service-learning activity, the author suggests that, "Taking time… to explore assumptions about the community, about the issues to be addressed as part of the course, and to identify gaps in understanding will prepare students to be observant and aware of puzzling questions that arise in the course of their service experience" (p. 8). This step is important because, when people encounter novel experiences, they will naturally try to fit impressions of those experiences into existing assumptions or cognitive frameworks. For example, students may assume that hospitalized children will react to the same type of stimuli as children in a typical school setting, though it may not be the case. "Preflection" is important, then, to examine one's assumptions, expectations, and pre-conceptions to see if they are appropriate for the actual situation. The authors suggest "writ[ing] a letter, to themselves, which identifies what they expect to see and do in their service site… not[ing] expectations in a journal entry, or creat[ing] a personal goal statement outlining what they expect to see and hope to learn. Assumptions made explicit can then be tested through experience and study" (p. 8). These expectations and assumptions can then be tested and adapted through actual experiences. Eyler particularly recommends, based on evidence, a "learning contract" with which "students [individually or as a group] identify learning goals and the evidence that will be needed to demonstrate their achievement" of those goals (p. 9). This allows for more autonomy for a student because she will be able to assess her own progress based on the goals written into the learning contract.

"The key to effective reflection during service," Eyler suggests, "is continuity; observations need to be continually processed, challenged, and connected with other

information" (p. 10). After starting a service-learning project, reflection should occur simultaneously with action. Obviously it need not be done hourly or even daily; however, as a student encounters new ideas and experiences, continual reflection "prevents students from resisting the implications of the discrepancies between their assumptions and their current frames of reference"—that is, it gives students an opportunity to continually challenge and modify their ideas as new experiences arise (p. 12). A journal is, of course, the traditional method of reflecting, but the author also suggests an organized group discussion—ideally with students themselves moderating—as an effective method of facilitating on-going reflection. Eyler also advises that students engage in discussion with the community partners—talking with teachers of students they tutor, or being debriefed at the end of the day—as a means of continual reflection (p. 14).

For post-service learning reflection, there are a number of effective methods: "Individual students can demonstrate their learning through reflective papers in which they trace the arc of their learning, through conventional papers in which they integrate service and library research, and through presentations or seminars where they share their conclusions with peers" (p. 14). Even more "challenging and exhilarating" is to present a final project to the community partners. This has the obvious effect of making the students accountable not just to themselves and their teachers, but to the community partners as well—a student will certainly work harder and better if she knows that she will have to explain herself to the community at the end of a project.

Knight-McKenna, et al. (2011) outlines three methods for reflection before, during, and after service learning. *Alternative Explanations* "focus[s] on recognizing negative stereotyping and provide[s] an opportunity for students to consider

alternative ways to understand others" (p. 3). Similar to Eyler's recommendations for preflection (2002), the exercise involves unpacking and examining, within a group discussion, assumptions about the people the students will be serving. *Cognitive Disequilibrium* "support[s] students in making connections between their AS-L experiences and the course content" by writing about tensions (or "disequilibria") they experiences during service-learning, and how they attempted to resolve those tensions (p. 4). Finally, after a service-learning experience, through an activity called "The Challenging Student," students analyze the differences between their initial observations and their final summary of an experience (p. 5).

Yorio and Ye (2012) did a meta-analysis of 40 quantitative studies looking at the effects of service learning on three outcome variables: social issues, personal insight, and cognitive development. Their research included an examination of reflection methods, and they found that using only written reflections is less effective, in terms of the understanding of social issues, than utilizing discussion-based reflection in addition to written reflections.

McEachern (2006), in reviewing the literature on reflection, underlines the importance of instructor feedback for student reflections, going so far as to suggest that "reflection is not effective without instructor feedback" (p. 314). He advises that, through frequent feedback, that instructors can be instrumental in "understanding where students are in their learning, valuing it, and then helping them learn and develop further" (p. 315). It is certainly easier, the author adds, to only take a cursory glance at student reflections, but this would be denying a student the opportunity for further growth through reflective feedback.

Kessler and Burns-Whitmore (2011) administered a pre and post questionnaire to a group of students to determine their attitudes toward three types of reflection: journal,

panel discussion, and questionnaire. Interestingly there were no significant differences in students' perceptions about the efficacy of any of the aforementioned tools. What's more, student responses made it clear that they preferred different methods of reflections for different aspects of an experience, which corresponds with Eyler's recommendations. The authors thus recommend that instructors utilize different methods of reflection, as opposed to relying only on journals, for example. Casey (2014), in the context of developing reflective practices for law students, proposes a useful six-stage model of scaffolding to encourage students to engage in deep reflection. Stage 1 asks students to consider their actions compared to that of a competent lawyer—in other words, to reflect on what the student did compared to others in a similar situation. In Stage 2—building on Stage 1—students consider what they could have done differently, and the possible outcomes of those different choices. In Stage 3, students go deeper in asking the question "Why?": why did the student make one choice versus another? What were the motivations? Stage 4 asks the student to look outside herself and consider, via empathy and observation, the motivations, desires, and context(s) of other individuals who were a part of the experience. Stage 5 further expands on Stage 4, looking at the broader social and systemic context (political, social, economic, etc.) of the experience: individuals are not isolated agents—they exist within societal contexts, thus situations are dictated not only by individual choices, but how those individuals are influenced by the contexts. Stage 6, as the deepest stage of reflection, asks students to think about their thinking—metacognition: "Specifically, we ask them how they think differently, or, how their thinking process has changed, as a result of reflection on the lawyering activity" (p. 346). This kind of deep reflection is important because the student is questioning her thinking process itself: does she have any inherent biases? Are her

analytical methods sound? Is there anything in her thinking process that might distort her understanding of herself and the experience?

Casey's scaffolding model is a good example of effective reflective practices. Simply asking students to recall and comment on experiential learning is not sufficient for achieving the intended CAS outcomes. Students need support to help them scaffold their reflections such that each "stage" builds upon previous thinking—for thinking and analyzing is a skill that can be developed and improved as much as any other (thus the DP includes a mandatory course called "Theory of Knowledge").

Conclusion

There are several general conclusions that can be drawn from the literature on SEL, service learning, and reflection. Firstly, SEL learning is vitally important to the healthy development of young people as they are moving from adolescence to adulthood. It cultivates aspects of an individual that allow her the ability to pursue a happy and meaningful life in the context of her society—that is, as a person who can positively contribute to the welfare of her social groupings, whatever they may be. Furthermore, the literature shows that SEL also positively affects a person's academic development—thus there are more concrete incentives for including SEL in school curricula. Service learning is one of the mainstays of SEL for secondary students (and beyond secondary). Research has shown that service learning is very effective at developing social and emotional competencies. However, for service learning to be effective, there must be a reflective component. The most effective method of implementing reflection—that is, the kinds of reflection that effectively support the social, emotional, and academic goals of service learning—includes certain key characteristics:

1. Reflection should repeatedly, and at different times during a service learning experience (before, during, and after).
2. Students should have the opportunity to reflect using a variety of methods (writing, speaking, drawing, etc.) and under a variety of different conditions (individually, in a group setting, one-on-one conversation, etc.).
3. Teachers or advisors need to be actively involved in the reflection process through feedback, questioning, prompting inquiry, and generally guiding students toward effective reflection.
4. Reflection should be "authentic" in the sense that it is not necessarily "forced," that the topics of reflection come easily and naturally from the service learning experience (specifically, that the same questions are not asked about different experiences), and that it doesn't have to occur on a regular basis—writing a reflection every Friday, for example.
5. Reflection should not just be a recounting of events and the student's perceptions of those events. Topics of reflection should include an analysis of one's choices, attempts to understand the perspectives and attitudes of the people involved, meta-thinking (analyzing one's thoughts and feelings—thinking about thinking), and other forms of deep introspection.

CHAPTER 3: METHOD

Introduction

This study is part of a larger research project with Drs. Robin Ann Martin and Manolya Tanyu. The larger project is a cross-case analysis of the CAS programs at six schools in Turkey which employ the IBDP in grades 11 and 12—either exclusively (at only one school), or in combination with a Turkish Ministry of Education high school curriculum (at the five other schools). While my colleagues' research looks more generally at CAS implementation as a whole, I focused on approaches to, and outcomes of, reflection within the CAS programs.

Research design

As our research is focused on implementation, I decided that a non-participatory multi-case study, employing descriptive content analysis, would be the most appropriate research method. According to Cohen, Manion, and Morrison (2007), a case study is a "single instance… of a bounded system… provid[ing] a unique example of real people in real situations, enabling readers to understand ideas more clearly…" (p. 253). The "bounded system" in question is reflection implementation within CAS programs at six IB schools in Turkey. More narrowly, the boundaries include the participants—grade 11 and 12 students, and the teachers, supervisors, and administrators of those students—during a particular time period—November 2013 to March 2014.

Stake (2006) and Yin (2003) describe certain characteristics of multiple, or collective, case study research. According to Yin (2003, p.53), in designing a multi-case study,

it is important to follow a replication logic or design—"Each case must be carefully selected so that it either (a) predicts similar results… or (b) predicts contrasting results but for anticipatable reasons." Having selected six DP schools in a similar context—within Turkey—aligns with Yin's concept of replication logic. Prior to the study, it was predicted that the schools would produce similar results in terms of how CAS was implemented, particularly because a school is meant to adhere to the curriculum of CAS as explicated in the CAS Guide. Stake (2006, p. 155) describes the "major conceptual responsibilities of the qualitative case researcher" as establishing the boundaries of the case, selecting the issues to be researched, looking for appropriate patterns of data, triangulating observations, selecting alternative interpretations, and developing themes or patterns about the case.

There are specific strengths and weaknesses of doing a multiple case-study research in this context. Perhaps most prominently, there is considerable observer bias stemming from the researcher him/herself. I did not anonymously "observe" CAS reflection in its "natural setting," but rather established an artificial scenario—individual and focus-group interviews—within which observations took place. Furthermore, an interview necessitates the involvement of the researcher within the scenario being observed. To wit, one writes specific questions to be asked, and the subject responds to those questions—from which emerges various biases that can affect the data being gathered. Furthermore, as Cohen, Manion, and Morrison (2007) point out, one should not be hasty in generalizing the results of a case study (p. 256). The approaches to reflection at the six schools studied is certainly dissimilar to at least a moderate degree, one assumes, from how reflection occurs at other IBDP schools both inside and outside Turkey. Thirdly, the nature of case studies raises difficulties in terms of cross-checking the results (p. 256)—it is unlikely that another

researcher will replicate my study exactly as I have conducted it. Therefore, it must be taken on faith that social science researchers, though inescapably biased, are presenting results as clearly and objectively as possible, and that they have summarized their own subjectivities fairly.

Research does not occur in a vacuum, nor is it undertaken for its own sake: it is intended to advance the field(s) in which it takes place. As an educator doing research on education, I want to provide results that can perhaps improve how education happens. Thus one of the considerable strengths of a case study is the relative ease by which a general audience can understand and internalize the data: my results can be easily read and applied by other educators in the field. Secondly, real-life situations—though one establishes certain boundaries for a case study—are nevertheless complicated and infused with innumerable variables affecting the data one gathers. Case studies have the advantage of being able to contextualize and subsume many variables into a narrative that provides at least some kind of insight or understanding of cause and effect (Cohen, Manion, and Morrison, 2007, p. 256).

In terms of the generalizability of the data, there are many IBDP schools—more than 1000—around the world. Even though the individual school cultures may be different, one would expect some similar challenges that are faced in implementing the reflection process, particularly in countries whose broader educational systems tend toward more traditional approaches of teaching and learning. As all these schools use the same CAS curriculum as prescribed by the IB, this data from this research can be potentially relevant to any school.

There were perhaps some minor issues with trustworthiness. For the CAS coordinators, they had a particular concern to portray their particular CAS program positively—inasmuch as their job security as a CAS coordinator is directly related to the perceived success of their program. Having known that my data is going to be published (albeit maintaining the anonymity of schools and individuals), there is a possibility that CAS coordinators—and perhaps administrators as well—gave slightly biased answers to my inquirers. As such, I had to adjust my analysis of the data to account for potential biases. Teachers and students, on the other hand, were surprisingly frank in their discussions (I made it clear that I would not discuss the responses of any one participant with other participants). For the latter stakeholders, there was less risk in giving more honest answers.

Context

As Neuendorf (2002) explains, in content analysis "an attempt is made to measure all variables as they naturally or normally occur" (p.49). In this instance, the variables being measured are how schools are implementing reflection in their CAS programs.

Onur (2011) published a case study of the integration of the IBDP and the Turkish national high school curriculum at her institution, Koç School, in Istanbul, Turkey. She purports that at Koç there has been a "convergence" between the national curriculum and the DP (approximately 30% of Koç students pursue the DP in addition to the national curriculum). "Convergence" implies two entities incorporating characteristics of each other as they become more similar. However, a closer reading of the chapter suggests that in fact it was the national curriculum courses that adapted some methods and philosophy of the DP—rather than the converse. This gradual process started with non-IB students participating in CAS activities, then taking IB courses, followed by teachers who adapted their methods to

more closely approximate those of the DP. This can be seen as a testament to the value of the DP: according to the author, this "convergence" was initiated first through the efforts and desires of students, rather than the administrators or teachers. Both the DP and the Turkish national curriculum teach essentially the same subjects (experimental and human sciences, languages, math, arts, and electives), though typically using different methods. The unique strength of the DP thus lies in the way in which these subjects are woven together with the IB philosophy (primarily the "Learner Profile") and—more concretely—the three entities at the core of the DP: CAS, the Extended Essay (EE), and Theory of Knowledge (TOK), of which CAS is the most prominent in terms of the time commitment required of students. According to the official IB "Diploma Programme: General Regulations" (2014), a student should devote approximately 40 hours to the EE, and 100 hours to TOK (not including assessment preparation). CAS requires, however, considerably more commitment: students are expected to participate in some kind of CAS activity on a *daily basis* throughout the DP. Prior to 2010, the official requirement was 150 hours of CAS participation, though that number has been replaced by a set of expectations for participation that has—in reality—often led to students completing far more than 150 hours. Furthermore, while the EE and TOK both focus on the skills and concepts of the core academic subjects, CAS is focused on the kind of experiential learning that is rarely a part of school curricula. All this suggests that the "convergence" achieved at Koç School, or other schools like it, may not be not predicated so much on the strength of the Turkish national curriculum, but on the unique programs within the DP: the EE, TOK, and to a greater extent, CAS.

Participants

Six schools were chosen for this study through purposeful sampling. Two programs were known to have strong CAS programs, and so I asked people at those schools to make recommendations of other well-established IBDP schools with strong CAS programs in Turkey. All the schools finally chosen have had the DP (and other IB curricula) longer than most IBDP schools in Turkey.

For purposes of anonymity, the six schools will forthwith be referred to by number (School 1, School 2, etc.). Table 1 provides some basic characteristics of the schools. Five of the schools were originally established with only the MEB curriculum, having adopted the DP as a secondary curriculum relatively recently: Students at these five schools are almost exclusively Turkish nationals, thus they are mandated by law to fulfill the MEB requirements for a Turkish high school diploma. Those students who are in the DP—though they are pursuing an International Baccalaureate Diploma—nevertheless must complete the MEB requirements concomitantly with their DP studies (no small feat considering the rigor of both programs).

Table 1
Summary of participating schools

School	Location	Year DP started	# of DP students	Total # of students (grades 11 and 12)	% of DP students to total students
School 1	Istanbul	1994	220	489	45%
School 2	Ankara	1996	90	90	100%
School 3	Istanbul	1997	80	80	100%
School 4	Ankara	1999	263	1044	25%
School 5	Izmir	2005	72	291	25%
School 6	Bursa	2006	64	130	49%

There are considerable differences in terms of school populations in grades 11 and 12 (the years covered by the DP), as well as the number of students in the DP. This is only an issue inasmuch as a CAS coordinator—and a limited number of advisors—are responsible for all the CAS activities of the DP students: helping students organize activities, supporting students logistically, and—for my purposes—helping students reflect, as well as giving feedback on that reflection. In a large institution like School 4 or School 1, the CAS coordinators are under considerable pressure simply because of the sheer number students under their aegis.

There were a number of features common to the five MEB schools. As mentioned earlier, at all non-international schools in Turkey, the curriculum of the MEB must be adhered to—in other words, students in the DP must simultaneously satisfy the requirements of the Turkish national high school curriculum. Often there are conflicts or difficulties in achieving the requirements of both curricula, especially with the importance of the national university entrance exam.

The student populations of these schools were almost exclusively Turkish nationals; our student focus groups were composed entirely of Turkish nationals, with varying degrees of English fluency—though all were fully capable of expressing their thoughts competently in English. The students are generally from middle- and upper-income families. The majority of the teachers in our focus groups were also Turkish nationals, though there were a few international teachers as well. The DP curriculum is taught in English—as per requirements—so most teachers also were able to communicate effectively in English; however at five of the six schools, translators were used in the teacher focus groups to help those more fluent in Turkish to feel more comfortable with questions as well as responses.

Besides the more apparent differences in the size of the student populations, there were some more subtle differences that I observed in the school cultures. School 3 was unique in that service learning is very much a part of the curriculum starting in the middle grades. Students there commented, for example, that transitioning to CAS was not difficult because they have been participating in service learning for multiple years prior to beginning the DP. At School 2, the administrator also mentioned some elements of community service and leadership that are encouraged at the earlier grade levels.

Another difference among school cultures was the perception of CAS either as an effective and meaningful part of the curriculum, or merely a requirement to be fulfilled. Obviously, opinions varied from student to student—and teacher to teacher—but certainly one could discern a general perception.

In terms of technology, Schools 1 and 3 used a web-based system called ManageBac—this program helps students, teachers, and supervisors to organize and manage the various facets of the DP, including CAS. There is a specific function in ManageBac for submitting CAS reflections, which will be discussed in more detail in later chapters. Schools 2, 4, 5, and 6 used other means—primarily on paper—to manage CAS activities, including reflection.

Instrumentation

The major data collection instruments were two interview protocols and two focus group protocols at each school; though at one school I helped to conduct four focus groups due to scheduling problems in which students and teachers were unable to all meet at one time. These protocols were developed in conjunction with Drs. Robin Martin and Manolya Tanyu, who were the more experienced researchers on a larger

study about CAS implementation in Turkish schools. There is a separate protocol for each of the four groups of stakeholders: IBDP students (see Appendix A), IBDP teachers (see Appendix B), CAS coordinator(s) (see Appendix C), and program or school principals/directors (see Appendix D). Each interview protocol is tailored to the specific exigencies of each stakeholder. Also, I used a semi-structured interviewing style, so as the interviews progressed and I realized a pattern was emerging across schools about student complaints of the reflection process, I sometimes added questions to encourage students, teachers, and coordinators to elaborate.

The questions were designed to elicit open-ended responses around themes relevant to our research questions and program implementation. In advance of each research visit spent at each school, the interviewers reviewed techniques to encourage participants to elaborate and extemporize on the various issues raised during the interviews. The following lists the protocol questions asked to the participants, as well as extemporaneous questions that arose during the course of the interviews. Some of the questions have been paraphrased.

- **Student focus group**
    - Protocol Questions
        - Tell us about the CAS program in this school.
        - How do you share what you learn from CAS? (in presentations, in reports, in logs or journals that you share with the CAS coordinator, etc.)
        - What is the purpose for you of the reflections? Do the reflections affect your experience of CAS? Have you received any feedback about your reflections? Overall, are your reflections useful for you?
        - If you were to change one thing about the CAS program, what would that be?
        - What have been some difficulties of your current CAS project?
    - Spontaneous questions that emerged during focus group:
        - Do you guys ever… stop, afterwards with your teachers, and talk about it at all?

        - Tell me about these “forms.”
        - What kind of questions did they ask you?
        - If they changed the questions or the format of the reflections, would it be more useful for you?
- **Teacher focus group**
    - Protocol questions:
        - How do advisors/teachers support students in their plan/act/observe/reflect process?
    - Spontaneous questions that emerged during the focus group:
        - Have others had trouble with reflections with students?
        - What are they realizing during this [panel interview] that they didn’t really see before?
        - How do you help them be reflective learners about the process of planning and then doing something and then observing themselves and then reflecting on the learning process?
        - Then how do you guide them through, what did they learn, what did they get out of it for personal development?.
- **CAS coordinator interview**
    - Protocol questions
        - Describe the CAS program in your school.
            - How do students reflect on their experiences?
        - What are some of the challenges of the CAS program at your school?
            - How did you address them so far?
        - What kind of resources are available to faculty and staff to implement CAS? Consider the time, materials, and guidelines that are available.
    - Spontaneous questions
        - Besides written reflections, how else do students reflect?

To establish the face validity of the interview and focus group questions, one of the research team members with expertise in youth development and implementation theory developed a logic model and conceptual framework based on initial conversations about the program with CAS coordinators in participating schools. This framework was then used to develop the questions, and native Turkish-speaking educators gave feedback on the English form, as well as a Turkish form that was developed.

The anonymity of participants was maintained during the research process and in the final published products as well; this was explained orally and on a participant agreement form. The form also outlined the participants consent to be a part of the

study, and they gave their consent by signing the form (no participants refused consent).

As this research involved some participants under age 18—and occurred in schools following the government curriculum—I needed to acquire formal permission from the MEB to conduct the research. This involved submitting a plan of research to the MEB for its approval, including the protocols intended to be used. In addition, parental consent was collected for all students who participated in the focus groups.

Method of data collections

This study used two primary research methods, focus groups, as well as individual interviews, along with a third method of document analysis. Creswell (2007) provided guidance for developing the interview protocols and techniques. Since attitudes and varied perspectives of stakeholders was critical to our research questions, the use of focus groups and interviews—as opposed to a paper survey, for example—was important for using our presence to establish a stronger sense of trust, thereby eliciting more reliable and elaborate responses. Having participants fill-out surveys would likely give a more incomplete picture. Interviewing in person, however, allows the researcher to probe particular topics for more information, to adapt the conversation when needed, and to develop the rapport that is necessary to gather a fuller picture of each school's culture and all participants' views.

At each school there were four sessions: an individual interview with an administrator overseeing the CAS program (usually a school director or high school principal), an individual interview with the CAS coordinator (sometimes there were multiple coordinators), a focus group interview with four to six IBDP teachers, and a focus group interview with five to eight IBDP students. For composing the latter

group, the CAS coordinator was asked to choose students of varying degrees of motivation in regard to CAS: two of low motivation, two of moderate motivation, and two of high motivation. In this manner, ideally, I were able to gather a range of comments more representative of the student IBDP population as a whole.

The interviews were recorded and then transcribed in preparation for content analysis. Additionally, a variety of documents related to the CAS programs were gathered from each school, including student reflections. These documents were analyzed as a part of the triangulation of the data gathered from the interviews. According to Woodside (2010), in order to achieve "deep understanding," in case-study research one must utilize a variety of methods spanning different time periods: direct observations of the subject(s) (though it must be noted that I did not use direct observation of participants), interviews with the subjects, and analysis of relevant documents. These three methods form the "vertices" of triangulation—each point supporting and checking all other points. What a students say about reflection, for example, may or may not be reflected in their actual reflections, written or otherwise. Thus in order to achieve a better understanding of the subject(s), it is important to triangulate the data in such a manner. Our primary form of triangulation was across stakeholders and documentation, as I felt the stakeholders, when interviewed separately, would be reliable sources for the research questions I had posed. One limitation of this, it should be noted, is that I did not have the opportunity to gather documents representative of different periods of time—I received documents only at the time of our school visits. The documents included examples of written reflections from low-, medium-, and high-achieving students (in terms of their motivation, involvement, and success in CAS activities). Also included were sample reflection

forms, various curricular documents, and forms related to the administration of CAS and CAS reflection.

Method of data analysis

In the design of this research, I followed the guidelines for content analysis and case study as established by Neuendorf (2002) and Creswell (2007). The latter defines a case study as research "of an issue explored through one or more cases within a bounded system… report[ing] a case description and case-based themes." (p. 73). The sample I have gathered for this study is comprised of six cases—the schools—within the bounded system of the Diploma Programme. Studying reflection implementation at these six schools can provide valuable data in terms of understanding how reflection actually occurs "in the field," as well as reveal certain themes across the six schools. Neuendorf's (2002, p. 50-51)) flow-chart model for content analysis is as follows:

1. *Theory and rationale*: determining what content will be examined and why, based on existing theories or perspectives. I decided to study reflection because, in my own school, I saw the poor state of student reflection, and I wanted to understand the factors that may have contributed to that outcome.
2. *Conceptualizations*: choosing the variables to be studied. I chose to examine concepts based on implementation literature and later also based on the literature review about reflections as summarized in Chapter 2.
3. *Measures*: determining how the data will be gathered. With my colleague and advisor Dr. Martin, I developed different protocols for each of the groups being interviewed. In terms of face validity, the questions for the protocols were developed using guidelines from prior research, and the CAS guide. The

guide elaborates certain methods and structures that should be followed in order for a particular CAS program to align with the goals of CAS in general.

4. *Coding schemes*: It should be noted that the data I was examining is a subset of a larger study of CAS programs in general; I was focusing on reflection specifically, whilst my colleagues—Drs. Martin and Tanyu—have been working with the larger data set. After having transcribed the interview data, a coding scheme was developed with Drs. Martin and Tanyu, using Nvivo 8, a program designed for qualitative research analysis. A total of sixteen primary codes were decided upon, based on the kind of responses I had received from the interviews. Within each primary codes, there were secondary sub-codes. For example, primary code number 6, "Student motivation for CAS," contained secondary sub-codes such as numbers 6.7, "Fun, enjoyment," and 6.3, "Work on established interests." Within each transcript, blocks of text were assigned one or more codes. For this study, I looked specifically at the following codes: 3.4, "Monitoring Students;" 3.4.1, "ManageBac"; 3.5, "Student reflection process;" and 8.2.2, "Writing reflections, journals, forms – Challenges for students."
5. *Training and pilot reliability*: As there were three coders working with the same set of codes and raw data, I had to ensure that our separate interpretations of the codes were aligned. As such, I coded the same document and discussed any discrepancies in order to come to a mutual understanding. Furthermore, codes were added, dropped, or modified, as needed to best describe the interview data, during the coding process.
6. *Tabulation and reporting*: After all the transcripts had been coded, one was then able to collate all the data related to each code horizontally. For example,

> selecting code 6.3, one can see the responses from all the schools related to "Fun, enjoyment" as a "Student motivation for CAS." Additionally, the data can be organized vertically by school, showing the prevalence of each code within each school studied. As my research is addressing the reflection process, I focused on the codes related to reflection, especially number 3.5, "Student reflection process."

In such a manner, one can then begin to look for larger themes, patterns, and other relevant analyses. The next step, then, was to develop a narrative for each school, and across schools. I wrote reports—intended for use by the respective CAS coordinators—summarizing and explicating the data I gathered from each school. Looking at reflection specifically, I analyzed the data across schools, which will be presented in Chapter 4. These reports were sent to the respective CAS coordinators for the purposes of participant checks, with clarification questions specific to each school; after receiving their comments, the reports were appropriately corrected.

As per Yin (2003), "The use of multiple sources of evidence in case studies allows an investigator to address a broader range of historical, attitudinal, and behavioral issues." Thus In order to triangulate the data, I also analyzed a number of documents from each school. The CAS coordinators provided us with numerous samples of student reflections—accounting for roughly five percent of the total CAS student body—from a variety of media: hand-written journals, online journals, activity reflection "forms," self-assessments, and others. Furthermore, I had asked that the samples be somewhat representative of the student products—namely, that they come from students who possess low-, moderate-, and high-motivation for the CAS program.

I did a sort of informal coding of these documents based on recommendations from prior research. I looked at some of these reflections for evidence to determine the degree to which the format of the reflection—as, for example, a form with checkboxes, or a self-assessment—hindered or helped students top produce authentic, meaningful reflections. To determine the "authenticity" of a given reflection, I looked for evidence of any of the following characteristics:

1. That the reflection involved more than simply recounting events.
2. That the student was re-evaluating ideas, decisions, feelings, or other subjective personal experiences.
3. That the student has considered modifying thoughts and/or actions based on these re-evaluations. (Creativity, action, service guide, 2015, p. 26-7)

Having analyzed the reflections based on the above criteria, I can better understand which methods are more, and less, effective for producing authentic reflection. There is, however, one limitation in that it could also be insightful to develop a coding procedure with which to more quantitatively determine the quality of reflections being developed by different methods at different schools. However, the scope of such an endeavor is considerably beyond this current study, so I leave it for future researchers to pursue.

CHAPTER 4: RESULTS

Introduction

The analysis of the collected data is divided into four sections, organized according my research questions. First, I summarize how schools implement reflection within the CAS program, showing the differences in the process of reflection from one school to another. The second section elucidates certain trends across schools that have emerged out of the analysis of individual CAS programs. This section especially focuses on concepts that were gleaned from the literature review summarized in Chapter 2. The third section examines the efficacy of some of the reflection methods being employed, in terms of how such methods may help or hinder the reflection process. Finally I present a brief analysis of the ManageBac system—an online, web-based portal used by two schools in our study (and many more schools around the world) to organize and facilitate many of the logistics of the DP. ManageBac is well-suited, in particular, for facilitating CAS programs, which require extensive documentation, evidence, and various forms of written submissions.

Two considerations should be mentioned here. First, throughout the next two chapters, I refer to schools as having either "strong[er]" or "weak[er]" CAS programs. This distinction is important in terms of providing a context for the analyses of individual schools as well as understanding trends as a whole. The determination of strong versus weak was made based on evidence from interviews with all the stakeholders. I made a judgment about the degree to which comments

and attitudes revealed how successful a given CAS program is in terms of actively engaging students toward achieving the learning outcomes.

Second, for the purposes of clarity in this study, the term "activity" refers to the entirety of a project, sport, or service activity. For example, a common "activity" is to volunteer at a hospital over the course of six months. The term "experience" is used more narrowly to refer to one instance of an activity—volunteering at a hospital for two hours, for example.

Research question 1: According to stakeholders' perspectives, how is the reflection process implemented at six IB schools in Turkey?

School 1: Strengths in pre-flection and using a variety of media

At School 1, there is a basic type of pre-reflection via ManageBac—a web-based DP application which will be discussed later in this chapter. Before beginning an activity, students must create an activity page in ManageBac. This page includes a section to insert a written describe the activity in which they do a basic form of pre-reflection: students are asked to make predictions about how the activity will help them achieve the CAS Learning Outcomes, as well as explain why they are engaging in this activity. Typically these descriptions do not extend beyond 200 words, but nevertheless they provide a basic forum to pre-reflect on an upcoming activity. Students and teachers also reported that they meet to discuss activities as a form of verbal pre-reflection.

During the course of activities, reflection happens primarily in the ManageBac application. Students are required to upload semi-regular "reflections" to the relevant activity page in ManageBac. I put reflections in quotations here because it is evident that, for some students—at all the schools studied, in fact—there is

confusion about the meaning and nature of reflection: often they understood "reflection" to be simply evidence[6] and description of an experience, as opposed to actively reflecting on the experience. The CAS coordinator understood that written reflections were often a burden to students, so he encouraged them to submit other forms of reflection—most commonly, links to YouTube videos in which the students are reflecting. ManageBac allows for users to append a variety of media including pictures, videos, websites, and presentations.

Among the six CAS programs examined, School 1 was apparently the most successful in terms of encouraging students to do reflection using a variety of media. The CAS coordinator was adamant in his belief that students should be reflecting in different types of media, and he re-iterated this often to his students. Given the students' disdain for written reflections encouraging other kinds of reflection allows the students the opportunity for more authentic reflection.

School 2: Strengths in regular meetings and feedback on reflections

School 2 does not use ManageBac—rather, they have a system of "booklets" into which the students accumulate all the documents related to their CAS experience. According to our interviews, the only type pre-reflection occurred when students fill-out an "activity registration form", which includes a section asking for a brief description of the intended activity, as well as an explanation of how the activity will help the student achieve the CAS Learning Outcomes.

Reflection during an activity happens in a variety of ways. The CAS coordinator meets with each student at least once every semester to peruse their CAS booklet as well as engage in a sort of verbal reflection—discuss what the students are doing and

[6] CAS requires that students submit evidence to verify participation in experiences and activities—photos, signatures from advisors, certificates, etc.

what they think about these activities. Students also are required to meet at least three times (for long-term activities) with the particular faculty advisor (typically a teacher) for each of the student's activities. Again, these meetings can be effective venues in which student and advisor can talk about and reflect on the student's CAS activities. However, there was no data about the specific content or purpose of these meetings. As the primary method of ongoing reflection, students are required to regularly compose analog journal entries on paper provided by the CAS coordinator. These entries are meant to summarize as well as reflect on the student's activities. The sample I analyzed show that the entries occurred every few days, and that a majority of the entries are under one-hundred words in length.

For reflecting after an activity—as well as at the end of CAS—students have a lot of writing to do. First, twice during each semester they compose an essay reflecting about their activities up to that point. After completing a particular activity, the students fill-out a 2-page, paper "self-evaluation form"—eight questions with room for short responses, and write a final reflection on the activity. Given that the definition of "activity" includes, for example, one instance of participating in a bake sale, these self-evaluations and final reflections quickly accumulate. It is one of the duties of the CAS coordinator to read and comment on all the reflections submitted by students. Looking at the samples, the coordinator of School 2 is very consistent and diligent in providing feedback, with short written comments asking about, for example, evidence of how the student connects an experience to the CAS Learning Outcomes.

School 3: Strengths in its unique CAS panel interviewing process

School 3 also utilizes the ManageBac application for dealing with most aspects of the CAS program documentation. Overall, based on the sum of the interviews with

various stakeholders, it can be concluded that the school has one of the strongest CAS program implementations among the six schools. This can be attributed in great part to the CAS coordinator, who had been recently hired: she is a very experienced and knowledgeable educator who made a few key changes which had quite a large effect on perceptions and understandings of the CAS program at the school. Perhaps the most unique and effective change implemented is a post-activity reflection and assessment tool called the "CAS Panel Interview. The predominantly positive comments made about the CAS Panel requires that one give a more detailed explanation about its implementation.

The CAS Panel Interview

When students first enter the DP in grade 11, they are informed that, at the conclusion of the CAS program, they will be required to sit for a 30-minute interview with a panel of four staff members. It should be noted that the staff members are not all teachers: administrators, office personnel, and in a few cases, even the maintenance staff are asked to participate in the CAS Panel. The idea of including non-teaching staff, according to the CAS coordinator, is to get the whole school knowledgeable about, and invested in, CAS.

Prior to the interview, the four panel members review the student's CAS activities in her ManageBac account. They are looking for balance and variety among the student's activities, evidence that the student achieved all of the CAS Learning Outcomes, and sufficient reflections for all the activities. The panel also peruses a separate "CAS Self-Assessment Form," looking for evidence of real/genuine reflection, an awareness of strengths and weaknesses, and any areas that need to be explored during the interview.

During the interview itself—running about thirty minutes—the candidate first gives a prepared statement, then the panel asks a series of question prompted by their investigation of the student's documents. The panel is also provided with a list of standard questions related to the CAS Learning Outcomes; for example: "*Which of the CAS objectives did you find most difficult to achieve?*" "*Explain the global significance of one of your activities*." "*Discuss one new skill you developed as part of your CAS experience and how it may help you in the future*."

Based on the student's responses/dialogue during the interview, the panel makes a determination as to whether she has achieved all of the CAS Learning Outcomes, and therefore, has passed CAS (and therefore, is eligible for an IB Diploma). There are three options: *Pass*, *Provisional Pass*, or *Not Pass*—in the case of Provisional Pass, the CAS coordinator will make a final decision on the student.

Based on our data, there is extensive support for the CAS Panels from students, teachers, and administrators. One teacher remarked,

> I think it makes it a bit more real for them, that they're going to be held accountable, not by some invisible organization, but they're going to have sit across the table from four teachers that they know, and they're going to have to talk about what they've done. Some of the students were really nervous in it. (focus group, March 2014)

The CAS coordinator observed: "...I just saw this almost immediate turn-over in how students were approaching [CAS]… it's much harder to be disingenuous face-to-face." Students also gave positive comments about the CAS Panel:

> And, for me, it gave me… it helped me understand that CAS is actually helpful [ha ha], because the whole time I was doing CAS, I was like, "I'm doing CAS… this is for CAS." But then when we went to the panel and they started asking us questions, I was like, "Okay, you know, I did this, this… Okay, it helped me this way… It'll help me in the future at some point…" It improves yourself, basically. It helps you realize that you're doing something that's beneficial to your self-improvement. (focus group, March 2014)

Although these are individual comments, they represent the attitudes of many of the stakeholders at School 3. There is one caveat: during the time of our visit, the CAS Panel regime had been in place for only one year, so perhaps the novelty of the program affected perceptions. Also, two students complained on behalf of peers who felt they should have been given more advanced warning about the importance of the panels; however, the CAS coordinator said that she had notified them several times in advance of their taking place.

Nevertheless, the CAS Panel seems to be a very effective method of reflection because it requires a student to prepare mentally for the interview by reconsidering—reflecting—on her experiences and activities in CAS. The interview itself is another form of active verbal reflection as the student interacts with the panel members.

In terms of pre-reflection, School 3 relies formally on ManageBac, and informally on student-teacher discussion prior to beginning an activity. As mentioned for School 1, when a student is "adding" an activity to her ManageBac account, she composes a brief descriptive pre-reflection that expounds upon the student's expectations about an activity, as well as the ways in which it will help her achieve the Learning Outcomes.

On-going reflection also happens in ManageBac: students occasionally compose reflective descriptions of their experiences. School 3 is different from other schools in that the CAS coordinator does not require a lot of reflections for activities—the students need more than a few, but there is no daily or weekly requirement.

In terms of utilizing a variety of reflections, beyond written submissions and verbal interaction with teachers, there was only evidence that a few students used other media to engage in reflection.

School 4: Challenged by its numbers and large quantities of paperwork

School 4 faces perhaps greater challenges than the other surveyed schools simply because of the large size of the DP student population, with 263 students in grades 11 and 12—though this is not dissimilar to the population of School 1, at 220. Nevertheless, during our visit I observed that one of the main challenges for both CAS coordinators (of which there were three) and students was simply dealing with the all the logistics—that is, paperwork—of implementing their CAS program. The school does not use ManageBac, thus there are a lot of documents to deal with, not the least of which are the large number of reflection forms, which are the primary means of doing reflection at this school.

These ongoing reflections are a form on which eight statements are directly linked to the CAS Learning Outcomes: "*I have planned and initiated activities*," "*I have developed new skills*," etc. The students give a numerical self-assessment—from 1 to 5 ("strongly disagree" – "strongly agree")—in regards to each of the eight statements, along with a very brief explanation; there is room for one or two short sentences in the boxes provided. A supervisor or coach signs the form as a means of providing evidence of the student's participation. There was no evidence, in our interviews, that the students were asked to provide any other types of evidence, or to reflect using other media. It is not required that students complete a reflection form for every single experience—typically, a reflection form covers one to three experiences of a given activity.

In terms of pre-reflection or reflecting after the fact, there was some evidence of informal verbal reflection between teachers and students. Teachers mentioned that they would meet with students to plan activities—and after an activity they would confer again:

> We were coming back we talked on the plane, what did we learn? How was it? How did it help you to develop your personality? For example, on a very simple level, it was the first time they were away from their families alone. They have to, you know, managed their money, stay in a house they've never been before, get used to their food and everything (focus group, December 2013).

Significantly, there was no evidence of advisor feedback on the reflection forms. One CAS coordinator remarked, interestingly, "We are not involved in the reflection process. That's their work. That's the students' work." *Researcher:* "Do they know how to do it though?" *CAS coordinator:* "Well, one would certainly trust that by this stage, yes." With such a large number of DP students, and an equally large number of documents to manage, it is understandable that advisors have little time for feedback on reflection, given all the other exigencies of running an effective CAS program. Nevertheless, as prior research has shown, students reflect much better when they are given feedback, and those reflections help them to better internalize the lessons gleaned from experiential learning.

Overall, students claimed that opportunities for authentic reflection were few, and limited to the reflection forms which provide very little room or encouragement for extemporization or deeper metacognition. The students simply self-assess using a 1 to 5 scale, and very briefly explain what that assessment is based on.

School 5: CAS complimented by an extensive extracurricular program

School 5 distinguishes itself from the other schools in our study—and, anecdotally, from most schools I have ever visited—in its strong commitment to service learning

and extracurricular activities. Indeed, that culture of service is codified in the school's motto: "Enter to learn; depart to serve." This is more than just lip service: students are expected to participate in service learning activities throughout middle school, and all students—both in the DP and the MEB—participate in service learning. Furthermore, according to the school's *Extracurricular Activities Handbook*, there are, amazingly, over 70 active clubs—in our focus groups, students told us that they all participated in multiple clubs. The diversity of clubs on offer does well to fulfill the holistic spirit of CAS: a student has the possibility of joining clubs such as French Drama, Percussion, Robotics, Animal Shelter, or Fishing. As a result, upon matriculating into the DP, according to student remarks, there was little difficultly in adapting to the CAS curriculum because of their previous years of service learning and other club experiences. However, CAS is more than only service learning, and the learning outcomes must be specifically pursued, developed, and achieved. Effective reflection is one element that is necessary for achieving the Outcomes.

Interestingly, when I asked the students about how they do reflection, they didn't initially understand the term. After explaining it briefly, the students realized that I was referring to what they call, "The Form"—"Form 2", specifically, with lots of boxes to check, apparently. This is interesting in that perhaps they don't fully comprehend the purpose or nature of the "forms" (reflection)—that they are meant to be more than just evidence of participation. This misunderstanding suggests a lack of feedback from teachers or advisors about student reflections, though it could also be possible that the students may have Turkish words for this process, but were not so familiar with the English phrasing about reflection..

School 5 uses a paper system of "folders" into which evidence of participation, reflection forms, and reflection essays are gathered. A considerable portion of the CAS coordinator's job seems to be just dealing with all this paperwork.

For reflecting before an activity, there is a formal "Before the Activity" form with four pre-reflection questions ("*Which values can [the activity] help develop and strengthen?*" "*What do I need to run this activity/project?*" "*What is the expected result of the activity itself?*" "*Why is this experiential learning? I.e., How will it help me grow as a whole person?*"). In addition, according to our interviews, it is clear that there is a lot of interaction between students and teachers. Because of the school's focus on experiential learning, club hours are programmed into the weekly academic schedule, during which students and teachers/advisors meet to discuss and organize club activities. These kinds of interactions are an effective form of verbal reflection, both before and during an activity. Both teachers and students showed positive attitudes about the clubs and the relationships therein, which helps to foster a fruitful environment for effective reflection.

Additionally, during the course of an activity there is the more traditional reflection requirement of an essay. At the end of each semester, students write three reflection essays: one each covering all their activities in Creativity, Action, and Service, respectively. One student remarked:

> The essay is generally the basic part; you have to explain it all. You have put your emotions; you have to put the effort you have done. You have to show that this is going to help somebody improve; or this is going to improve myself. So I'm trying to prove that I have done something good—for me, or for the community (focus group, December 2013).

As mentioned, reflection during an activity also happens as verbal interaction between students and teachers/advisors during the weekly club hours. After completing an activity, students fill-out a form that is almost identical to the "Before

the Activity" form—having the same set questions, altered to use the past tense instead of the present—and compose a project summary. Students did not have anything good to say about these forms; attitudes were uniformly negative:

> The CAS folder is the most hated thing of CAS actually. I love doing Service; I love doing Creative things; okay, Action is okay, but… consequently, we need to make a folder, we need to fill-out the forms… like, lots of forms: "What did you do? How did prepare to do this? How many hours did you spend for this activity?" Blah blah blah. Three times; same questions… (focus group, December 2013)

The CAS coordinator was also aware of these negative perceptions, noting that students often complained about having to fill-out so many forms for their activities.

School 6: Students establish goals, then follow them through

There is quite a strong program of reflections in place at School 6—though the reflections are almost entirely in written form. Unlike all the other schools in our study, students at School 6 write a "self-review" at the beginning of CAS: this is a brief essay in which students evaluate themselves in terms of social-emotional competencies, and based on that evaluation, establish personal goals for their participation in CAS. This is an effective method of reflection recommended by existing research. Furthermore, it is helpful for the learning process in any context to establish clear, measurable goals as a means of determining or benchmarking success in the undertaking. For academic goals, exams may be used to benchmark student understanding of concepts; measurable benchmarks can similarly be applied in social-emotional learning.

Before starting a specific activity, students fill-out a one-page "Project Planning Form", which includes a space for the student to pre-reflect on her experience based on a series of questions: for example, "*Is the activity a new role for me?*" "*Identify the needs: Why do I want to do this project?*" "*Does it have real consequences?*"

After completing the activity, students fill-out a similar one-page form, entitled "Candidate Self-Evaluation," which poses a series of reflective questions related to the Planning Form and the learning outcomes: among them, "*Summarize what you did in this project and how you interacted with others*." "*Explain what you hoped to accomplish through this project*." "*Did anyone help you to think about your learning during this project? If so, who helped and how did they help?*" The weakness of both these forms is that there is very little room to respond to the questions—four lines, in fact. On some of the forms, students resorted to writing in the margins in order to give a more complete answer to the questions.

There were some negative comments from students about all the "forms and papers" because, students said, the forms pose same set of questions for all activities, regardless of whether they were creativity, action, or service. One student remarked, "You can answer [the questions] for service, but you can't answer them for action, because it says, 'How can you improve your environment? How are you beneficial for the environment?'" Furthermore, they felt that the kind of reflection being encouraged by the forms is superficial: "You don't write what you really think—you write what has to be written." Another student said, "When you see a question on the form, you feel that you have to answer... the way they want it to be... Each question directs you to answer it as they want" (focus group, December 2013).

In addition to the basic reflection questions on the activity forms, students write two long reflective essays—one each at the end of grade 11 and 12. The students are meant to format this essay in a way that they address and respond to the eight learning outcomes of CAS—such as, "Have I planned and initiated activities?" The CAS coordinator reads these essays, gives written feedback, and returns them to the students. If the CAS coordinator believes that a reflection essay needs significant

improvements, then a student must rewrite and resubmit it. These reflection essays seem to be the most important component of reflection overall, within this program. One student remarked quite favorably about the essays, "The general reflection paper is important also because you see [over] the two years' period how you've changed. How you [have] improved yourself. When I look [at] my reflection paper[s], I think, 'Yes, I think this, and now I am like this.' It's okay, but as everyone else says, the forms don't show what we did" (focus group, December 2013)

In terms of verbal reflection with advisors, after an activity there is often an informal group discussion—especially on longer CAS activities such as volunteering in a rural village over the course of a week. One student referred to an interesting and effective reflection activity:

> After each event that we did, we used to get together and talk about what we did. learning about how the disabled people feel… We closed out eyes and we tried to walk around; and we tried to learn how people felt when they can't see. And after we [understood] it and talked about it. It helps you to learn how others feel when the do it, not just you (focus group, December 2013).

This is evidence of authentic and effective reflection: teachers guiding students to develop new perspectives and understandings about their CAS experiences. Another good example comes from a teacher discussing a school trip to a conference about war and peace in the Netherlands:

> When we're discussing war and peace, we can relate it to the Turkish experience right now. [The students] get to see how to discuss that, talk about that, see other people's opinions, and then also we have a reflection. So, there at the conference we sit down [and discuss] how our social interactions went. So, for example... they felt very uncomfortable where people are talking German and Dutch, but at the same time, I tried to make them aware that maybe one or two students felt left out of their group because they were talking Turkish to the exclusion of Dutch and German students (focus group, December 2013).

Again, this is another great example of authentic and effective verbal reflection. Although I probed into such issuses with each focus group, it was hard to determine exactly how often these kinds of reflections were occurring. Nevertheless, it is clear that at least some of the teachers at this school were aware of how to implement effective reflective practices.

Overall trends regarding reflection implementation

Schools 1 and 3 were unique according to their internal guidelines for doing reflection: there was no required minimum, nor schedule according to which the students were meant to complete reflections. Rather, they were encouraged to do reflections, according to the CAS coordinators, when they felt personally compelled. There was, nevertheless, a certain expectation—communicated by the coordinators—that reflections should be done on a somewhat regular basis. For both coordinators, reflection was not viewed as an end in itself but rather as a means to the end of achieving (and providing evidence for having achieved) the CAS learning outcomes. Furthermore, unlike the other schools in our study, Schools 1 and 3 encouraged students to use a variety of methods for reflection (provided those methods could be uploaded, in some fashion, to ManageBac). School 3 was the most innovative in using the "CAS Panel" as a motivating element, assessment tool, and reflection exercise in itself. Overall, it could be said that much of the success of reflection implementation specifically—and the CAS program in general—at these schools is attributable to the flexibility that is given to students, the greater involvement of other teachers and staff, and the understanding that reflection is a tool, and not an end in itself.

Schools 5 and 6 can both be considered to have strong CAS "cultures" in the sense that, according to the interviews with students and teachers, there was a real

appreciation and commitment to the ideas and goals of CAS, especially as an integral aspect of the Diploma Program. However, that culture did not always translate into positive outcomes with every student, particularly with the reflection process—"the most hated thing of CAS." This came from a student at School 6, and she was referring specifically to the program's "CAS folders" which, in fact, constitute only a part of the totality of reflections happening at the school. The folder contained mostly evidence from activities, and the plethora of Before and After activity forms which must be filled-out for every activity in which a student participates (at both Schools 5 and 6). These activity forms contain a variety of questions intended to stimulate reflective thinking, but the forms are of limited value toward that end.

However, there is a lot of meaningful reflection happening at these schools, but through other means—primarily essays and verbal interaction with advisers/teachers. School 5, in particular, really encouraged students and advisors/teachers to interact on a regular basis as they are developing various activities. Teachers reported that these interactions were fruitful opportunities for enabling reflection—advisors discussing experiences with students, asking questions, eliciting meta-cognition. School 2 should also be included in this category: they gave evidence of a lot interaction between students and CAS advisors or the coordinator. Additionally, from the samples I inspected, the reflection essays from Schools 2, 5, and 6 generally show authentic and meaningful reflection. However, many students indicated that they did not understand that discussion and essay-writing are considered to be forms of reflection. This is partially a result of the diction employed by the advisors and coordinators: the term "reflection" was often employed to connote merely a record of activities, so the students likely understood it the same way. Consequently, many

students did not realize that they were actually reflecting effectively using different methods.

School 4 had the weakest CAS program in our survey. It also had the largest student CAS population—263 at the time of our visit—and thus required *three* CAS coordinators/supervisors (as opposed to the one at every other school) to administer the program. In their implementation of reflection, they relied primarily on Before/After activity forms and regularly written, brief journal entries. There was little evidence of advisors or coordinators giving feedback to student reflections. Consequently, students neither appreciated the significance or meaning of reflection, nor did they produce generally authentic reflections.

Research question 2: What trends emerged across schools that indicate strengths and weaknesses of the CAS reflection process?

The following section elucidates certain trends that have emerged from the research process. For this analysis, I have used as a basis the five recommendations for reflection, based on prior research, outlined in the previous chapter:

(1) *Reflection should happen repeatedly, and at different times during an experience (before, during, and after).*

(2) *Students should have the opportunity to reflect using a variety of methods (e.g., writing, speaking, drawing) and under a variety of different conditions (e.g., individually, in a group setting, one-on-one conversation).*

(3) *Teachers or advisors need to be actively involved in the reflection process through feedback, questioning, prompting inquiry, and generally guiding students toward effective reflection.*

(4) *Reflection should be "authentic" in the sense that it is not necessarily "forced," that the topics of reflection come easily and naturally from the service learning experience (specifically, that the same questions are not asked about different experiences), and that it doesn't have to occur on a regular basis—writing a reflection every Friday, for example.*

(5) *Reflection should not just be a recounting of events and the student's perceptions of those events. Topics of reflection should include an analysis of one's choices, attempts to understand the perspectives and attitudes of the people involved, meta-thinking (analyzing one's thoughts and feelings—thinking about thinking), and other forms of deep introspection.*

The timing of reflection

At the end of this section, Table 2 shows how schools are (or are not) engaging in reflection before, during, and after activities. As some activities last only one day, and some last for weeks or months, the timing and method of reflection is important. The period of time considered "after" includes not only immediately following an activity, but at the end of the CAS Program (in a student's final year), or possibly at the end of a given semester. "During" also has a specific meaning: it indicates a time period from when a student begins an activity, until she completes the activity days, weeks, or months later. Specific instances of reflection that happen "during" would be after, say, basketball practice, or a shift at the hospital. These kinds of reflections are important because they allow students to re-consider their ideas and actions, and then possibly modify them for future experiences of the same activity. For obvious reasons, "during" reflections rarely occur for short, one-day events.

It should also be noted that verbal, group reflection was more likely to happen for extended activities that involves many students—particularly if that activity involves

a trip to another location. For individual activities within Action and Creativity, interactive reflections with CAS supervisors was less likely to occur.

Among all the schools studied, overall the strongest characteristic of their reflection methodologies was the fact that students were reflecting before, during, and after an activity or experience. Again, the literature suggests that reflection is most effective when it occurs at those multiple points in time. Reflecting before an experience allows a student to question her assumptions, to make educated guesses about the experience, and to set personal goals for herself. The latter is particularly important as a means of establishing measurable benchmarks by which one can judge one's progress. Reflecting during an experience is important as a means of re-evaluation, re-tuning, and introspection. One thinks about one's thoughts, one's choices made, and one's reactions. By evaluating these data, one can modify one's ideas and behaviors, and apply the changes to the next experience. It is, in a way, a form of trial-and-error—"This didn't seem to work, so perhaps I will try this technique next time." Learning from mistakes is, without question, the foundation of human knowledge and development. Ongoing reflection is very useful as a tool for this kind of developmental trial-and-error. And, of course, reflecting after an experience is important as a means of internalizing this knowledge and development.

All the schools in our study were using some form of reflection before, during, and after CAS activities. The type and quality of those reflections varied, but it is significant, nevertheless, that students are engaged in reflection at different times during activities.

Table 2
Six schools' approaches to the timing of the CAS reflection process

	Before	During	After
1	Students meet in small groups with a CAS advisor or coordinator to discuss the CAS process. When adding the activity to ManageBac, students include pre-reflection in the written description of the activity.	In ManageBac, students upload videos, write, or use other media. They are not required to post reflections after each experience, but rather on a semi-regular basis (every week or two).	Spoken reflection: after an activity, teachers sometimes meet with students to reflect on the activity.
2	Students fill-out a paper "activity registration form" for individual activities. Prior to whole school projects, there were meetings in advance	Students make written entries in a paper journal. The CAS coordinator meets with students individually once every semester, giving written and oral feedback. Students meet with a CAS advisor at least 3 times while participating in an activity (if it is long-term).	After completing an activity, students fill-out a 2-page, paper "self-evaluation form"—8 questions with room for short responses, and write a final reflection on the activity. 4 times during a year, students write a "reflective comment" on "how well things are going."
3	In ManageBac, students write a pre-reflection related to the CAS learning outcomes.	Students occasionally write reflections in ManageBac.	Near the end of the DP (in grade 12) students fill-out a "CAS Final Self-Assessment Form," write a summative reflection, and individually attend a CAS panel interview. At the end of longer trips, while traveling back, advisors use that time for debriefing.
4	Sometimes students and CAS supervisors meet to discuss and pre-reflect on an upcoming project, especially service projects.	After almost every experience, students fill-out a paper "CAS Activity Reflection form," based on the CAS Learning Outcomes.	Sometimes students and CAS supervisors meet to discuss a particular project and reflect afterwards.

Table 2: Six schools' approaches to the timing of the reflection process (cont'd)

5	Students fill-out a "Before the Activity" form with four pre-reflection questions.	Students and teachers often meet to discuss activities during the many programmed club hours throughout the school week.	After completing an activity, students fill-out a form with the same questions as the "Before the Activity" form, and write a project summary. At the end of each semester, students write 3 reflective essays for C, A, and S.
6	Students write a "self-review" at the beginning of CAS, including goals. Before starting an activity, students fill-out a paper "Project Planning Form," which includes pre-reflection questions.	At the end of the first year, students have an "interim review" with a CAS advisor. Students keep a "diary" in which they record and reflect. They also write a 500-word reflective essay.	After completing an activity, students fill-out a paper "Activity Self Evaluation Form". At the end of CAS, students fill-out a "Student Final Summary Form". They also write a 500-word reflective essay.

Authentic reflection

Some basic trends also emerged from the research across these six schools concerning the use of authentic reflection. First of all, it was clear that the vast majority of students were quite committed to—and enjoying—participating in and completing the requirements for CAS. Most students expressed how much they enjoyed doing these activities such as clubs, sports, and volunteering. However, as noted in previous chapters, the nature of experiential learning is such that one cannot divorce the experience from the learning associated with that experience. Experiential learning is internalized through multiple channels, one of the most important of which is authentic reflection. The quality of student reflection stems in great part from the instructions and expectations of advisors and, of equal import, the medium in which students are reflecting. Schools that utilize a repetitive, checklist format for reflection are less likely to produce authentic reflection: it

becomes more of a rote process of filling-out and submitting required documents, rather than the subjective experience of internalizing social-emotional awareness and skills, as evidenced by student comments such as: “The reflection forms—as I said, they are such a pain in the neck;” “Sometimes we are writing things that we do not know. When I’m filling-out reflection forms, I’m really not me—I’m someone else… I didn’t give them my experience: I gave them what they wanted me to experience in their imagination.”

Furthermore, requiring students to submit reflections on a regular basis, with a deadline—daily or weekly, for example—appears to only compound this situation: students are compelled to complete reflections only for the extrinsic motivation of program requirements.

Overall, evidence indicated that the use of discussions and verbal reflections was perhaps one of the most effective means of authentic reflection. When teachers or advisors were working directly with students, they were able to ask questions or pose discussion topics in the moments that elicited an authentic reflection process for students. One student remarked, for example, “Our children’s hospital adviser left to work at Uskudar, and she was the loveliest person, and we always talked about it. And Gulsen [another advisor], I always see her in the morning when I take in the class notebook. We’re pretty close; these clubs make us more close to our teachers—I like that.”

Throughout many of the interviews with students, there was an ambiguity about the way in which students were referring to reflection—the meaning of the word “reflection” itself. They often talked about reflection as though it was more of a documentation, description, or evidence of events, rather than a thoughtful—meta-cognitive—interpretation of events. For example when asked about the purpose of

reflection, more than one student (at multiple schools) responded similarly: "[The purpose is] to show what work we've done." Another student: "To show we've done the activity." Another student: "To [please] our advisor… he wants us to prove that we did those activities."

Furthermore, there is evidence, in many of the sample reflections provided by the schools, of this lack of understanding about what reflection is. Although there were many examples of authentic, meaningful reflection, there were also many examples of students simply recounting events:

> We organized and orchestrated a day in school were I personally got up on stage and made a presentation on raising awareness for natural disasters and the precautions we should take beforehand. I advised the audience which included parents and students to have emergency plans and emergency kits at home. I also talked about the safety precautions we take at school and shared the school emergency plan.

Again, it must be stressed that the scope of this study cannot quantitatively account for what proportion of reflections are authentic or otherwise. It can be concluded that many analyzed reflections were primarily descriptive in nature, with little evidence of meta-cognition. Many students simply do not understand what is expected for authentic reflection, and how it differs from documentation or evidence; they do not grasp the essential function, methodology, and ultimate purpose of reflection—and this can only be the responsibility of the school and the advisors: they need to help students to develop reflection skills, which includes giving feedback on a regular basis.

Varied means of reflection

Reflection can be an enervating, meaningless exercise, or it can be an exercise that allows for real insight and self-knowledge. Having to fill-out the same questions on the same forms for every experience or activity—regardless of whether itis creativity,

action, or service—does not facilitate authentic reflection. Table 3 presents a summary of how each school was using three types of reflection, namely—written reflection, verbal reflection, or other media (typically a video, presentation, photos, or other exhibits).

One important characteristic of schools with more successful CAS programs was the freedom and autonomy given to students in terms of how they were encouraged to reflect. The CAS coordinator at School 1, for example, was very enthusiastic about allowing his students to reflect using a multiple media—videos, writing, online presentations, or group discussions. This aligns with the recommendations of the literature on reflection: reflection is more likely to be authentic if students have different methods available to them. The CAS program at School 3 also encouraged students to use a variety of reflection methods, not the least of which was the specially-designed CAS panel discussed previously. While there were mixed attitudes about reflection at this school, students still showed better awareness of the purpose of reflection.

Schools with less successful CAS programs also tended to have fewer ways for students to reflect—primarily through writing, whether online through ManageBac, or on paper. Students at these schools bemoaned the rote, repetitive nature of reflecting: "It's just a checklist for organizing." Another student: "And we are writing everything three times. Our CAS coordinator prepared three different kinds of forms, but they're all asking the same questions." Another student: "[Reflection is] for our benefit, but I think, at the end, you get really tired and it turns out to be a burden, and [not an] advantage…" The latter student was from School 5, which used writing almost exclusively as the only means of reflection.

It is the conventional wisdom in pedagogy, in general, to allow students different means of learning, as per Howard Gardner's theory of multiple intelligences (Gardner, 1983). Different students have different intelligences and, as such, they should be given opportunities to learn and be successful through different means. This extends, as well, to reflection: some students are simply able to better express and understand themselves through writing, or speaking, or interaction, or other means. Forcing students to reflect using only writing—which was the most common method in four of the six schools studied—may inhibit many students from looking more closely at the social-emotional lessons of their experiential learning.

Table 3
Evidence of how six schools used a variety of reflection methods

	Verbal	**Written**	**Electronic**
1	• Sometimes, after an experience or activity, students and teachers meet to discuss and reflect	• Semi-regular entries in ManageBac	• The CAS coordinator encourages students to upload video reflections to ManageBac
2	• Sometimes, after an experience or activity, students and teachers meet to discuss and reflect	• Regularly written entries in a journal • 2 "reflective comments" each semester • Fill-out an "activity registration form" • Fill-out a self-evaluation form	• Occasionally students create PowerPoint presentations or videos
3	• CAS Panel at the end of CAS • "Interim interview" at the end of grade 11	• Regular entries in ManageBac • Self-assessment at the end of CAS	• Videos are added to ManageBac, but there is no evidence that students use videos to reflect.
4	• Students and teachers sometimes meet to discuss and reflect	• Forms filled-out after almost every experience • Journals	• No evidence

Table 3: Evidence of how six schools used a variety of reflection methods (cont'd)

5	• Students and teachers often meet to discuss and reflect	• 3 reflective essays at end of each semester • Reflection forms filled-out before and after activities	• No evidence
6	• "Interim interview" at the end of year 1	• "Self-review" essay at the beginning of CAS • "Project planning form" filled-out before an activity • "Diary" in which students regularly reflect • After an activity, filled-out "Self-evaluation form" • At the end of CAS, filled-out "Student final summary form" • At the end of CAS, 500-word reflective essay	• No evidence

Teacher/advisor feedback

Perhaps the weakest overall aspect of reflection at the six schools was the brevity or lack of feedback on written reflections. As with any other kinds of educational products—essays, lab reports, musical compositions—feedback is absolutely essential for the learning process. Teachers show students where they can improve and elaborate, and students are then able understand those issues, adapt their thinking and behavior, and produce new products with this acquired knowledge—in short, they have *learned*. What is the essential role of a teacher if not in giving feedback to students? Thus, reflections also need some kind of feedback, even in verbal form. Perhaps that is the strength of discussion as a method of reflection: student and teacher engage in a feedback loop, as it were, of question and response. The teacher is able to help the student in understanding her experiences by giving

feedback throughout the course of a conversation. “What did you learn?” “Why do you think you learned that?” “Do you think you made the right choices? Why?” One teacher at School 3—which has a more effective CAS program—remarked,

> I obviously give quite a bit of direction about where I want things to go, but then I give her resources or point her in the direction of resources, and then let her do it. And then afterwards, we have a little bit of a feedback session. And she’s really great about going on and doing reflections. Like, I never have to say anything to her about that. (focus group, March 2014)

For learning, reflection requires some form of feedback. Students need to know if and how they are reflecting correctly. It is, of course, the role of the teacher to help students to develop reflection skills. Giving feedback on reflections is one of the best ways of helping students in this way.

A second role of feedback for student reflections is to make the process meaningful. In producing something for consumption by another person—or the public—feedback is *absolutely essential* in giving the process meaning. Imagine a symphonic performance where no one applauds at the end; or a film that receives no reviews or public comments of any sort; or a football game where no one cheers. These are absurdities of the highest order. And yet—and again, it is conventional wisdom in pedagogy—feedback is almost equally essential for any student products, if only to provide a grade/mark: “This paper receives a C because you failed to do this and this.” The student sees this assessment and, ideally, adjusts her thoughts and behaviors such that she will be more successful on the next assignment. Reflections also require feedback because it makes the process more meaningful for the student; otherwise it’s as though the reflections disappeared into the void.

Based on the sample reflections examined, there was little evidence that students were receiving regular, qualitative feedback on their written reflections. While at least one CAS coordinator mentioned the importance of giving students periodic verbal and written feedback, it would be difficult, short of an intrusive recording of discussions between teachers and students, to document evidence of verbal feedback.At the two schools utilizing ManageBac, the CAS coordinators indicated that they were giving regular feedback on reflections uploaded to the online system. Nevertheless, at three of the four other schools, regular written feedback was not evidenced. I would speculate that this is partially the result of the often multifarious logistics of most CAS programs. With the heavy burden of simply dealing with literally thousands of student CAS documents, little time and energy remains for the bedraggled CAS coordinator to give effective guidance and feedback on student reflections. Indeed, the primary complaint of CAS coordinators was the overwhelming burden of dealing with all the paperwork associated with CAS—not only due to the sheer amount of paperwork, but to the lack of time as well: in all six cases, CAS coordinators were teachers as well, and did not receive any (or much) extra remuneration or a reduced number of teaching hours in exchange for their participation in CAS.

Attitudes about reflection

The most significant and cross-cutting trend I observed, at all schools, was the generally negative attitudes that students had about reflection. One of our protocol questions was, "What would you change about the CAS program at your school?" At every school I visited, the students gave almost the same answer: reflection. They didn't like how it was done. They didn't like doing it. They didn't understand the purpose of it. It seemed superfluous and "*against the spirit of CAS*," as one student

put it. This is such a revealing comment, given the fact that the CAS Guide identifies reflection as one of the core elements of the program. In the interest of simplicity as well as affectation, here is a list of various comments regarding reflection from students—and a few comments from CAS coordinators—organized according to a few general themes:

Reflection is a pointless activity

- *[CAS coordinator]* "I don't think I've talked to any student who says "oh yeah, yeah I want to do that." *[laughs]* "Filling lots of form is giving them hard time… they don't like bureaucracy."
- "It cheapens it [CAS activities]."
- "It didn't really work very well."
- "I think we shouldn't… have to write what we did. It's something needless. Why would I write what I did? Because if I did that and I improved myself, that's the important thing… I don't like the idea [of reflecting]."
- *[Interviewer: "You seem uncomfortable when I say the word, 'reflection.'"]* "Yes, definitely. It is really unnecessary…"
- "Sometimes we are writing things that we do not know. When I'm filling-out reflection forms, I'm really not me—I'm someone else… I didn't give them my experience: I gave them what they wanted me to experience in their imagination."

Reflection is only for documenting activities for administrators

- *[Interviewer: "Are these forms and essays useful to you guys?"]* "Definitely, no… Documentation is just a pain in the butt… basically it's a checklist for organizing."
- "It's just paperwork… I mean, like, writing my emotions down won't make me feel different about helping kids… It's just a way of convincing the IB that we did CAS; we did help the community; we did do something creative… Reflection is… supposed to make you feel more satisfied in a way, but it's not doing it for me, because… "Why am I doing it?" I know why I'm doing it. I'm very aware of the situation."
- "I think, for administrators… [reflection is] a checklist—"we did this"—and if we do it right or wrong, we prove things."
- "The CAS folder [of reflections and other documents] is the most hated thing of CAS actually. I love doing Service; I love doing Creative things… [But] we need to make a folder, we need to fill-out the forms… like, lots of forms: 'What did you do? How did prepare to do this? How many hours did you spend for this activity?' Blah blah blah. Three times; same questions…"
- "I don't think they [advisors; the DP] really want to know whether we improved or not. The thing they want to know is whether we did the activity or not, whether we participated in the activity… I don't think it's…they don't

get anything for if I improve myself."

- "I think reflection is something that we have to do, so it's not very helpful."
- *[Interviewer: "What is the purpose of reflection?"]* "To show we've done the activity."
- *[Same question]* "To make our advisor, like, he wants us to prove that we did those activities, and we know that we did those activities, but he has to believe, because some people just make them up to complete CAS hours."

Reflection is difficult and despised

- "It's for our benefit, but I think, at the end, you get really tired and it turns out to be a burden, and [not an] advantage."
- "I don't really want to report everything I did because if I did something that I like, it's my hobby. And if I have to record it, it's kind of…" *[she makes a face—a grimace]*.
- "I think the hardest part of CAS is preparing the folder [of reflections and other documents]. Because I am doing the activity; afterward I should stop and write everything down."
- "I mean, how can you classify things that you cannot even categorize? You know, you need to rate yourself in certain aspects… How can we classify like we do, and then rate them according to certain aspects…"
- "The reflection forms—as I said, they are such a pain in the neck."
- *[CAS coordinator]* "Reflection is the part they hate to do."
- *[Interviewer: "If you could change one thing about CAS, what would it be?"]* "Reflections."

The overall message here is unambiguous: students generally reported that they enjoyed participating in CAS activities, but they didn't appreciate or understand the reflection process. They see it as a burden; a necessary evil; a means to "prove" that they participated in activities; a "requirement" for the DP; a sort of play-acting in which they say the things which they believe are expected of them by CAS advisors and others. This is, to be blunt, inimical to the very nature of what reflection should be, and is intended to be, according to the CAS Guide:

> Reflection is central to building a deep and rich experience in CAS… Student learning is enhanced by reflection on choices and actions. This enables students to grow in their ability to explore skills, strengths, limitations and areas for further development. Through reflection students examine ideas and consider how they might use prior learning in new contexts. Reflection leads to improved problem-solving, higher cognitive processes and greater depth of understanding in addition to exploring how CAS experiences may influence future possibilities.

(Creativity, service, action guide, 2015)

These lofty words are a far cry from the comments and attitudes procured by students. For many students at all the schools studied, reflection was a deeply misunderstood—and thus abhorred—aspect of CAS.

Overall trends regarding strengths and weaknesses of reflection implementation

There are a few key trends that emerged from this research process regarding the implementation of the reflection component in CAS. It may be useful here to review the basic recommendations for reflection as suggested by the CAS Guide (2015). These recommendations are closely aligned with the recommendations that emerged from my literature review in Chapter 2.

Firstly, the Guide recommends that students "reflect at the beginning, during, and at the end of a series of CAS experiences. This enables students to deliberate on such elements as planning, opportunities, expectations, challenges, progress, and personal growth" (2015, p.28). The key element here is to embed reflection *into* CAS activities such that it is used to both understand and inform the activities of participants. Reflecting only at the conclusion of an activity is useful, but only to a limited degree.

All the schools in our study had some form of reflection before, during, and after CAS activities; and some schools used various forms of summative reflections—either at the end of a semester, or the end of the CAS program itself. Though the type and quality of those reflections varied, all the schools can be considered to have successfully aligned with the CAS guide on this particular point about the timing of reflection.

The CAS Guide (2015, p. 28) further recommends that "Reflection can appear in countless forms. CAS students should be able to identify forms of expression that have personal meaning and best enable them to explore their experiences." That is to say, students should neither be required nor encouraged to reflect only through one medium. Reflection is most effective, according to prior research, when students reflect using a variety of methods and media. Among the six schools in our study, the most common method of reflection was writing, followed more infrequently by verbal and/or group discussions involving students and CAS advisors. Written reflection is, of course, an effective and logistically convenient method, but student perceptions at all the schools in our study showed that they felt almost overwhelmed by the burden of written reflections. School 6 and School 1 were unique in that their CAS coordinators encouraged students to reflect in different ways, yet the data showed that most reflection was still happening through writing. The CAS Guide suggests that, "When overly prescribed, students may perceive the act of reflection as a requirement to fulfill another's expectations." However, "By encouraging students to choose forms of reflection that are personal and enjoyable, reflection becomes a means for self-discovery." The six schools in our study all struggled at encouraging students to reflect in diverse ways. Nor did hardly any students see its value to them in terms of their learning process either. Much to the contrary, the burden of reflecting almost exclusively—and continually—through writing was perceived as being almost "against the spirit of CAS," as one student remarked.

In terms of the responsibility of the CAS coordinator and advisors, the Guide (2015, p. 27) submits that feedback "is beneficial and necessary… [It] provides acknowledgment, confirmation or clarification of students' understanding and insight, and opportunities for further development." Because feedback is often given verbally,

it was hard to quantify the extent to which it was occurring. However, as a general trend five schools were moderately successful in providing substantial and regular feedback to students about their reflections, though at one school the data showed that feedback was almost nonexistent. At other schools feedback—both written and oral—was variously more common, though still not to the degree recommended by research and the CAS Guide. However, the strongerCAS programs seemed to encouragemore verbal interaction between students and CAS Advisors, and these kinds of interactions are fruitful arenas for giving constructive feedback to students.

A final trend observed across all six schools was the extent to which many students simply did not understand the very nature and purpose of reflection. For some students, "reflection" was understood as merely providing evidence that they participated—photos, signatures, and written descriptions of their activities. Whilst other students understood reflection to be just another necessary box to be ticked as a requirement for passing the CAS program, and thus graduating from the Diploma Programme. These latter students enjoyed their CAS activities, but, by and large, they did not perceive any utility whatsoever in reflecting.

Research question 3: To what extent do the media and methods that are being used for CAS reflection support the reflection process?

This study only examined written reflections—though reflection can and should occur through a variety of different media. It would be beyond the scope of this study to make quantitative judgments about the quality of reflections being produced by CAS students (though not impossible, and certainly a feasible research possibility for a future study). Nevertheless, it is instructive to examine certain of the written

reflections as a means of understanding some trends that may result from how reflection is implemented at different schools. Our research team requested that each school provide us with sample reflections from roughly 5 percent of the CAS students. Furthermore, I asked that the samples represent students who possess varying degrees of enthusiasm and determination. Thus the sample reflections are roughly representative of the student population as a whole in providing a general picture of student outcomes and abilities.

School 1: ManageBac dominates

School 1 uses ManageBac as the primary means of facilitating non-verbal CAS reflection. Consequently, one needs to determine the extent to which ManageBac aids or hinders the reflection process, which is my fourth research question. Because two schools in my study—and many hundreds world-wide—use ManageBac, a detailed analysis of the role of ManageBac in CAS reflection will be effected in the next section.

School 2: Two short forms and a journal

In terms of written reflections, School 2 has three main tools—the "Activity Registration Form" prior to activities, a regular journal used during activities, a "self-evaluation form" following an activity. On the Activity Registration Form, there are three pre-reflection questions: "*How will the activity be a new role?*" "*How will this activity be a new task?*" "*How will this activity have real consequences?*" Beyond these questions, there is no other place for the students to reflect further on the activity; and, indeed, the form provides for a total of two lines per question for student responses. Given the few number of questions and the even smaller _____ for responding, there is little possibility of authentic or meaningful reflection. Rather,

it encourages students to give trite, rote answers that conform to their assumptions about the expectations of CAS advisors or coordinators.

During an activity, the students maintain a log, of sorts, in which they describe and reflect on their CAS experiences. The log is formatted as such:

Date	C/A/S	Hours	Comment

Figure 1: CAS activity log

For any given CAS experience, the student enters the relevant data ("C/A/S" refers to which type of activity it was—creativity, action, or service). The comment section is where the student is meant to describe and reflect on the experience. Unlike the forms for School 4, this form allows more space for reflecting; a student can use as many lines as needed. Here are some samples of good, bad, and mediocre student reflections:

- "Ran at Aimir lake >5km"
- "Litmag writing and story writing."
- "Today we had our first practice of the season. We started really early because the team has to get ready for the ISSA tournament, which is in November. I worked on my passes and serves. We didn't push ourselves too hard since it was the first practice. But I realized that my legs were hurting when I got home."
- "Today, our ice cream event took place. We sold a lot of ice creams to middle & high school. I saw that I'm challenged by money counting. It takes me a while to do money maths. And during the meeting we discussed on the event & decided on buying t-shirts to represent."
- "I was very disappointed at how much I had got out of shape during the summer. I was the first to run out of breath during the warm-ups. My health and fitness should have been at a greater value. For next practice, I should push myself further."

There is indeed a wide range in terms of the quality of reflections. Some students gave only the merest mention of what occurred, while others are clearly engaged in reflection—though not necessarily of the deepest sort. Nevertheless, this format for reflecting at least gives the possibility of meaningful reflection, though it certainly does not encourage it.

The Activity Self-Evaluation Form, to be completed after finishing an activity, is somewhat more comprehensive than the Activity Registration Form. There are now eight questions (versus three) with three lines (versus two) provided for student responses. Among the questions are the following: "*Explain what you hoped to accomplish through this activity.*" "*What did you learn about yourself and others through this activity/project? What abilities and values have you developed?*" "*How can you apply what you have learned in other life situations?*" These questions are appropriate for the task, and they promote deep reflection—one could write a whole essay for any single question. The main problem is, then, that the form provides so little space for actually responding to the prompts. For a question like, "*What did you learn about yourself and others through this activity/project? What abilities and values have you developed?*" the only possibility for answering, given the limited space, would be to simply list a series of traits, with almost no context or explanation. This does not promote authentic reflection.

School 3: ManageBac combined with panel and final self-assessment

School 3 had one of the strongest CAS programs among the schools in our study. The methods and opportunities for reflection were part of the reason why this school is successful. Besides the aforementioned CAS Panel, students also completed written reflections via ManageBac (which is discussed later in this chapter), as well as a "CAS Final Self-Assessment." It is quite an extensive document in which

students respond to a variety of questions based, in part, on the IB Learner Profile and the CAS Learning Outcomes. Furthermore, the students self-assess the extent to which they achieved their personal goals—having been previously established at the advent of the CAS program:

> Goal: *To initiate myself in more activities outside of the program*. I was fairly successful in this goal because I initiated at least 2 activities including regular gym attendance and self-directed band. The gym activity was going on for a while prior to the start of CAS however I started attendance more frequently and with goals in mind which allowed me to increase my participation in the gym. Secondly, I initiated the self-directed band along with my peers which also contributes to collaboration. This activity included organizing the music room for availability and attending regular practices in preparation for the performance which will take place in the future.

Though this excerpt does not exhibit much meta-cognition, the fact that students had previously set goals, and then were actively considering these goals, is significant. An important aspect of reflection is to perceive and understand the kind of changes and growth that occurs via experiential learning. A student is able to use these goals as a benchmark for measuring such growth.

The Final Self-Assessment also asks the student to rate herself against the characteristics of the IB Learner Profile—Inquirers, Knowledgeable, Principled, and others. The student must give evidence from her CAS activities to demonstrate that she has developed or improved that characteristic. For example, a grade twelve student wrote, for *Caring*:

> In band we often ran into problems where people could not play their parts and so I had to be patient with my band members because they took time to learn their part. I offered to help them where possible so we could make a more successful performance.

This is not an example of really deep reflection, but nevertheless it is evidence of basic reflective thinking. The problem is that—as with forms at other schools—there

is very little actual space provided to respond with depth. The above response is quite typical, in terms of length, for the answers given by students.

School 4: One short form and a journal

School 4 was by far the largest of the schools in our study. Consequently, the CAS coordinators (of which there were three, unlike a typical school which only has need of one) spent a considerable portion of their time and energy dealing with the plethora of paperwork, especially reflections, associated with a program of that size. Furthermore, as a subjective judgment based on comments from students and teachers, School 4 had a weaker CAS program in terms of students' understanding toward achieving the CAS learning outcomes. One of the primary methods of reflection involved the "CAS Activity Reflection Form. It is replicated here as such:

Learning Outcomes	Rating	Explanation
I have increased my awareness of my own strengths and areas for growth.		
I have undertaken new challenges.		
I have planned and initiated activities.		
I have worked collaboratively with others.		
I have shown perseverance and commitment in my activities.		
I have engaged with issues of global importance.		
I have considered the ethical implications of my actions.		
I have developed new skills.		

Figure 2: CAS activity reflection form

For each of the CAS learning outcomes, the student provides herself with a rating of 1 to 5, from "strongly disagree" to "strongly agree," then writes a very brief explanation in the box provided. Students used this one form for all their CAS activities, whether they were in creativity, action, or service.

There are some fundamental weaknesses of this kind of reflection method. Firstly, it does not promote deep, authentic, reflective thinking. It is almost anathema to the nature of experiential learning to apply an objective numerical judgment for what are often subjective social-emotional experiences. Examining the hundreds of specimens in our sample, the vast majority of then self-assessed ratings were 4 or 5—either the students in this program were truly astounding in their ability to achieve the learning outcomes, or they are overly generous in their self-assessments. The following are examples of "explanations," in their entirety, of how students rated themselves:

- "I have a debate team."
- "It was a day-long program."
- "I realized that I am able to dance when I sing."
- "We made something good for nature."
- "I worked collaboratively with my groupmates."
- "" [That is, the student provided no explanations.]
- "I developed my persuade skills."

As one can see, there is very little—if any—evidence of authentic reflection. One cannot, however, blame the students in this regard: the reflection form itself neither encourages nor allows for authentic reflection. In the "explanation" box, there is room for two short sentences at most—hardly sufficient for even the merest moment of reflection.

School 4 also used journals, but they did not provide us with examples of their journals. From comments made by students, it did not seem as if the journals were understood consistently across students. For example, one student explained that he had lots to say in his journal (though he had not yet written it), while another said, "I can understand the aim and motivation behind journaling, because you have all these photos; you can explain yourself without any words."

School 5: Before/after forms combined with three short essays

School 5 used a system of before/after forms, combined with short essays, similar to that of School 2. For reflecting before an activity, a formal "Before the Activity" form posed four pre-reflection questions ("*Values: Which values can [the activity] help develop and strengthen?*" "*Means: What do I need to run this activity/project?*" "*Goals: What is the expected result of the activity itself?*" "*Aims: Why is this experiential learning? I.e., How will it help me grow as a whole person?*"). The "After the Activity" form is identical in every respect, except the questions use the past-tense, instead of the present. The space afforded for student responses allows for perhaps four to six sentences. The following are one student's Before and After responses to the same question—"*Goals: What is/was the expected result of the activity itself?*"

> [Before] Throughout this activity, I am expecting to help the sick people and the hospital. I am planning to find a hospital that could use some extra help, so that I can be useful in there.
>
> [After] Throughout this activity, I had the chance to help those what are in need. I found a hospital that accepts interns and use some extra help. Mostly, I worked in the pathology department. However, I was able to spend time with the ill people and talk to them. I believe, throughout the time I was there I was helpful to the hospital.

As one can see, there is little discussion about expectations or goals beyond the general service idea that student intended to do, and the second response is just a longer elaboration of the first. These Before/After forms do give more space for student responses, but they are still forms, and as such they do not encourage deeper reflection. Furthermore, students at School 2 complained particularly about the fact that the forms ask the same questions, every time, for every activity—regardless of length (some activities last only one day) or type (creativity, action, or service). It would seem more appropriate for the forms to ask different questions for, say, volunteering experiences, than a sports league.

The short essays written by students at the end of each semester showed considerably more depth of reflection. For each domain of CAS (C, A, and S), the student writes one essay (for a total of three) covering all the activities within that domain over the course of a given semester. Based on the samples I analyzed, the essays tended to have much greater depth and authenticity than the Before/After forms. This is because, in part, they are open-ended: rather than responding to a specific question on a form, the student is encouraged to think more deeply. Here are two excerpts from essays representing low- and medium-motivation students:

> [Medium-motivation student; essay on Action] I love cycling it really gives me peace but I had difficulties with organizing my day. Since I have a busy schedule because of the school, I used to bail on the group and not attend to programs… The hard part for me was to go there alone so I found a friend that can accompany me. After that everything became much easier…
>
> [High-motivation student; essay on Creativity] Back in January, I attended my last THIMUN conference and as a senior along with other seniors, I had to take responsibility of 18 students all at least two years younger than me. This might sound okay but when you are in a foreign country that you don't speak the language of with a bunch beginner… you need to be precautious and very careful at all times. So this experience taught me a lot of things…

These samples show that the essays are much more effective than the forms as a method of reflection. Both essays show depth of meta-cognition, reconsideration, and generally authentic reflective thinking. Of course, the forms may be a compliment to the essays, in that they may help students to keep track of and remember their goals and completed activities, which then helps them to write more comprehensive essays.

School 6: Project planning forms, self-evaluation of each activity, and two essays

The "Project Planning Form" at School 6 is quite similar to that of other schools: it is a one-page document with a series of pre-reflection questions related to the CAS learning outcomes: "*Is the activity a new role for me?*" "*Identify the needs: Why do I want to do this project?*" "*Does it have real consequences?*" And, as with the forms

of other schools, the questions leave little space in which to respond—about two centimeters. On some of the reflection samples I analyzed, students were forced to write all over the margins in order to provide a more complete answer. Examples:

> ["*Does it have real consequences?*"] Yes it will have. I will learn many things about history of my city. I will improve my language—English—but more than that, I'll learn to see the details in are, what I should [understand] when I was visiting a historic place.
>
> ["*Is the activity a new role for me?*"] I'm social people and have self-confiden[ce]. So, the communication is not problem for me most of the time. But this activity is total new role for me. Because I will learn the rule and way of talking which I do as habit.

For both responses, the students were forced to write in both margins, and down the side of the page, in order to complete their thoughts. Yet these responses are still necessarily incomplete—the student is not really engaged in deep reflection. It is not, however, the fault of the students: the form does not provide enough space for meaningful responses.

After completing the activity, the students fill-out another form—the "Candidate Self-Evaluation." This form includes questions such as, "*Explain what you hoped to accomplish through this project,*" and "*What did you learn about yourself and others through this project? What abilities, attitudes, and values have you developed?*":

> ["*Explain what you hoped to accomplish through this project.*"] I hoped that after these lessons, I can communicate with my mates better and specifically when I met someone in the first time I can express myself how I want. And I succeeded it and saw the benefits of it.
>
> ["*What did you learn about yourself and others through this project? What abilities, attitudes, and values have you developed?*"] I learned to prepare more specific resolutions before coming to the conference. I was more talkative this time.

These are two examples that show how the Candidate Self-Evaluation form suffers from the same defect as the project planning form: students are not given enough

space to respond authentically and meaningfully. The above responses show very little evidence of any kind of deep reflection.

The students at School 6 also complete two essays—one each at the beginning and the end of CAS. The second essay is intended to be a summative reflection on the entirety of a student's CAS activities and experiences. The samples I examined showed a remarkable depth of thinking and authentic reflection, especially in relation to the typical responses given on the reflection forms. For example:

> Creativity is not just learning something new. It is more like developing your creative skills, and being able to think differently and then create new ideas… I can say the same thing for action as well. Action is not just jumping and sweating. It is more like feeling what you are doing and why.
>
> CAS teaches a person how to be human. Helping hungry people, giving foods, clothes, and books to them give the happiness that nothing can give in the world to the person… So the person that the real happiness source in life is doing services to people. A human is a human when somebody else's pleasure means the pleasure of that human. (sample essay, Grade 12 student)

What I notice, in particular, about these essays—and those of other schools—is that the students are actually providing excellent, authentic answers to the questions posed, and in this case the answers seem neither forced nor artificial. The authentic reflective thinking emerges from the method of the essay itself. If a student is given the opportunity to reflect in such an open-ended fashion, then she is more likely to produce reflection that provides evidence of having achieved the CAS learning outcomes and—more importantly—to have engaged in real, meaningful meta-cognition about her learning experiences.

Overall trends regarding the efficacy of reflection methods

Two overall trends were revealed by this document analysis. First, based on comments from students as well as evidence from the documents, it is clear that the reflection forms being used by most schools, before and after activities, have little

value or effectiveness in terms of promoting authentic reflection. Multiple students remarked that, in answering the questions on the forms, they often gave the answer that they assumed was expected, rather than an authentic response. Also, while some questions do promote authentic reflection, the forms provided too little space—usually only two or three lines—for responding with authentic reflection.

Second, several schools utilized essays, to varying degrees, as summative reflections covering longer periods of time and multiple activities. According to student comments and evidence from the student samples, the essays were a much more effective method of reflection. Many samples showed extensive, authentic reflective thinking such as considering actions, thinking about choices, and questioning assumptions. Students reported, as well, that they were more amendable to writing the essays, as opposed to the vitriol routinely heaped upon the forms.

Research question 4: To what extent does ManageBac support the reflection process?

A fourth research question emerged in the course of our research at the different schools. ManageBac was being used in two of the schools, and it seems to be gaining popularity across IB schools throughout the world. Therefore, I decided to also investigate also how this digitalized tool was supporting, or not, the reflection process.

Of the six schools surveyed, two were using the ManageBac system to organize CAS activities and documentation, and communicate across stakeholders. ManageBac is a web-based program developed by two graduates of the DP who perceived a niche in the educational market: well aware of the difficulties of

managing and organizing all the different aspects of the DP—both for students and teachers—they created ManageBac to give coordinators, teachers, advisors, and students a central, easily-accessible platform on which CAS, the Extended Essay, and other courses of a student's curriculum can be organized. My school also uses ManageBac, and generally it is used mostly for CAS, and for other courses to variously lesser degrees.

As two of the surveyed schools use ManageBac almost exclusively for student reflections, it would be instructive here to explicate in more detail how CAS generally, and reflection specifically, is implemented via ManageBac. First, prior to starting a CAS activity, a student (who has a personalized ManageBac account with a login) "adds" the activity to her "CAS Worksheet" (*Figure 1*), which is a page that displays all of the CAS activities in which the student is engaged, along with the activity type (Creativity, Action, or Service) totals hours completed, and the "Outcomes" associated with the activity,[7] which are selected by the student).

One of the suggestions coming out of prior research is that students should engage in "pre-reflection" before an activity—voicing assumptions, making guesses about what will happen, anticipating challenges.

While adding an activity, the student must complete a relatively comprehensive pre-reflection about the activity, typically 100 to 300 words. Though this is quite short compared to other methods of essay-type reflection, it is still more effective than the

[7] As mentioned in previous chapters, there are eight "Learning outcomes" (seven for the curriculum beginning in 2016) that must be achieved in order for a student to pass the CAS program, which is a requirement for receiving an IB Diploma. There are as follows: "...there should be evidence that students have: (1*) increased their awareness of their own strengths and areas for growth*, (2) *undertaken new challenges*, (3) *planned and initiated activities*, (4) *worked collaboratively with others*, (5) *shown perseverance and commitment in their activities*, (6) *engaged with issues of global importance*, (7) *considered the ethical implications of their actions*, (8) *developed new skills*" (Creativity, action, service guide, 2008, p. 5-6).

"forms," used by other schools, on which students respond very briefly to a series of questions. The pre-reflection on ManageBac is open-ended, and as such requires the student to think more deeply and creatively about the activity. However, the pre-reflections can also be quite shallow if they are not monitored by feedback from advisors. The following is a pre-reflection from a grade 11 student, including the learning outcomes that the activity is meant to address:

> Applied and accepted to become a Student Officer in the conference. I served as a Chair in a committee for 3 days.
>
> 1. Undertaking new challenges
> 2. Working collaboratively with others
> 3. Engaged with issues of global importance
> 4. Develop new skills

There are two issues here. Firstly, the pre-reflection does not show any evidence of actual reflective thinking or meta-cognition. Secondly, it is clear that the student wrote the "pre-reflection" after he had completed the activity. This raises a secondary issue of the degree to which advisors are interacting and providing feedback to students. This was an activity that was accepted and *approved*—again, after the fact. Here is a ManageBac reflection showing more authenticity; I have elided large portions of it in the interest of brevity:

> The Peer Support Project (ADD) is a project organized by the counseling office of my high school where upperclassmen are given the duty to help freshmen adjust to high school… By taking part in this project I aim to increase my communication skills with younger students and large crowds, as well as to make my experiences useful for others. I also want to increase my ability to plan and initiate activities… The activity also forces me to consider ethical implications as students often see their Peer Support mentors as the person to go to with problems and I aim to do my best with these questions and concerns…

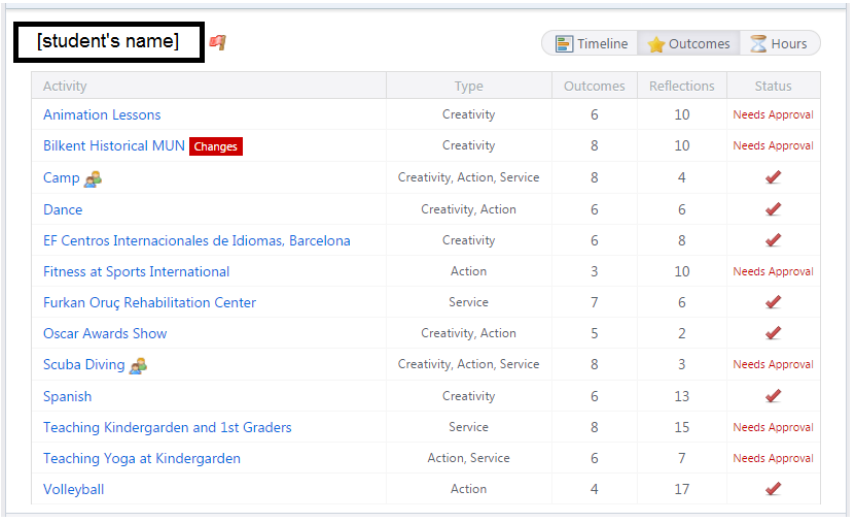
The unedited reflection has a word count of 302, which is longer than many of the reflections I perused, but certainly not atypical. The student has voiced her expectations and assumptions about the activity; she has also established certain

goals that she intends to achieve. This is an example of a strong, authentic, and effective reflection. Both this reflection and the previous one are from students in the same grade at the same school, yet one of them clearly is not reflecting effectively. What factors, then, account for the differences?

The answer seems to be the extent to which advisors and coordinators are interacting with students: after a student has "created" the activity in ManageBac a supervisor is then tasked with approving the activity. In both of the aforementioned cases, an advisor approved the activities, despite the obvious flaws in the first reflection. In any case, the advisor must also add appropriate "CAS Questions" to the activity, which are to be answered by the student after she has completed the activity. These CAS questions are not generated by the teacher, but rather come from a pre-determined list on ManageBac. Some of the questions include: "*What did you learn about yourself and others through this project? What abilities, attitudes and values have you developed?*" "*How can you apply what you have learned from this project to other life situations?*" "*How successful were you in achieving your goals? What difficulties did you encounter and how did you overcome them?*" "*What was your worst experience during this activity and why?*"

The CAS worksheet also displays a student's "progress" toward achieving the eight CAS outcomes (*Figure 2*). Interestingly, this progress is tabulated by totaling the number of outcomes associated with each activity. Certainly, it simplifies the task of assessing if a student has achieved the CAS outcomes, but perhaps it is over-simplified. The CAS guide explicitly states that for a student to complete the CAS requirement, "all eight outcomes must be present." However, it is the quality of a CAS activity (its contribution to the student's development) that is of most importance." (Creativity, action, service guide, 2008, p. 6).

ManageBac is a very useful tool for organizing CAS, but one wonders whether ManageBac might be oversimplifying the very complex experience of social-emotional development through experiential learning. *Figures 1* and *2* comes from the account of a grade 11 student, who has completed a typical number of "reflections," as compared to her peers. Normally, at the end of the DP, a student will have completed upwards of 100 to 200 total "reflections" for all of her CAS activities. This student certainly appears to be well on her way to achieving the CAS outcomes, but it is important to examine the content and quality of a student's reflections in order to achieve a better understanding of the student's progress toward achieving the outcomes.


[student's name]

Timeline | Outcomes | Hours

Activity	Type	Outcomes	Reflections	Status
Animation Lessons	Creativity	6	10	Needs Approval
Bilkent Historical MUN Changes	Creativity	8	10	Needs Approval
Camp	Creativity, Action, Service	8	4	✓
Dance	Creativity, Action	6	6	✓
EF Centros Internacionales de Idiomas, Barcelona	Creativity	6	8	✓
Fitness at Sports International	Action	3	10	Needs Approval
Furkan Oruç Rehabilitation Center	Service	7	6	✓
Oscar Awards Show	Creativity, Action	5	2	✓
Scuba Diving	Creativity, Action, Service	8	3	Needs Approval
Spanish	Creativity	6	13	✓
Teaching Kindergarden and 1st Graders	Service	8	15	Needs Approval
Teaching Yoga at Kindergarden	Action, Service	6	7	Needs Approval
Volleyball	Action	4	17	✓

Figure 3: A screenshot displaying a student's "CAS Worksheet"

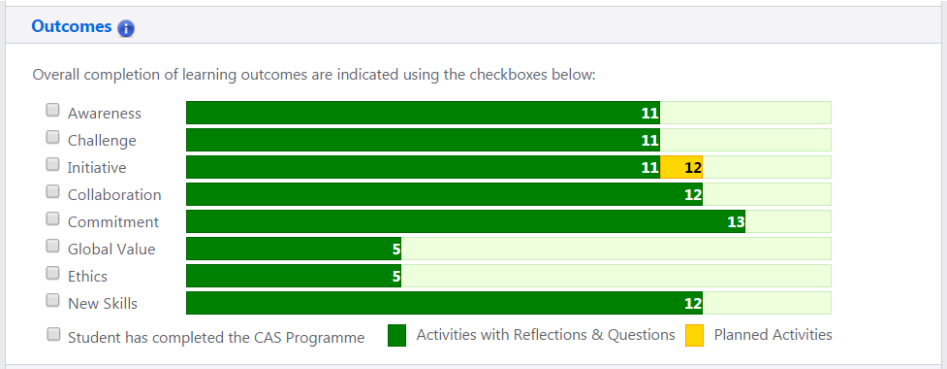


Figure 4: A student's accumulation of CAS outcomes

Clicking on one of the activities, one is taken to the main activity page, which allows navigation to the CAS Questions (selected and appended by an advisor) for the activity, as well as to the "Reflections and Evidence," which is a page that contains the collected evidence (photos, video links, etc.) along with the written reflections completed by the students. The following are examples of ongoing weak, moderate, and strong reflections posted by different students, for their respective activities:

> [Weak] The unites we have covered (1-7) are:
>
> Band 1, Lektion Thema, Lektion 1 Hallo!, Lektion 2Eis und Biologie, Lektion 3 Mode und Familie, Lektion 4 Hobbys, Lektion 5 Kontakte, Lektion 6 Schule, Lektion 7 Schule einmal anders
>
> ---
>
> [Moderate] I became the assistant of our coach and help younger archers. In this two years, I realized my own potential of how to be a real leader, and also learned the importance of taking responsibility, while teaching others not only the archery skills but also the ways to accomplish their goals in preciseness.
>
> ---
>
> [Strong] This camp to Kars was actually our own idea, and as the members of the Young Guru Academy, we planned our trip there. During our stay in Kars, we stayed in the houses of villager families, and during our time there, out of our comfort zones, we encountered many problems due to our lavish conditions in the city; however, we learned how to cope with those challenges and overtook them one by one. We also realized the cultural nuances of living in an Eastern city, this differences made us consider the ethical implications that came with the cultural difference. At the same time, we developed new skills,

> such as camping or hiking and committed to what we did, since the tough conditions required doing so.

Looking at these three examples of CAS reflection in ManageBac, three issues emerge. First, as also discovered during student focus groups, it seems that many students do not fully comprehend the difference between a record of one's activities, and a reflection about those activities. It may be that the language and format used in ManageBac contributes to this blurring of "record" and "reflection:" most students have submitted "reflections" in a routine fashion, after each event—"On this date, I did this, then this happened." Second, reflection need not only be in written from: research suggests that students can reflect using a variety of media and contexts. The "Reflections & Evidence" section allows students to include any kind of web-based link to, for example, a video reflection uploaded to YouTube, or perhaps an audio-visual work or reflection. However, in my survey of many of the reflections from the 39 grade eleven and twelve students in this CAS program, I have yet to come across a reflection format beyond journal writing. ManageBac is just a platform, however, and it is also the responsibility of a CAS advisor to help students to utilize reflection activities other than journal writing.

The third issue is one mentioned earlier: without the appropriate advisor guidance and feedback, the quality and authenticity of reflections of many students will not be aligned with the expectations of the CAS program as outlined in the CAS Guide. Certain self-motivated students—and those who have a more natural propensity for reflection—are going to produce more effective reflections. However, as with analog methods of reflection, other students need more guidance and feedback from advisors to help them to produce effective reflections. The ManageBac system encourages a sort of rote form of reflection—"fill this out, click here"—and, left to their own devices, many students will not compose the kind of reflections that help

develop the eight CAS Learning Outcomes. It is clear that, in this system, students connote "reflection" to mean simply a record of participation. A large proportion of the reflective pieces I surveyed were simply accounts of what happened, with very little actual reflection.

ManageBac does provide two distinct advantages. First, it is a platform that encourages the use of different reflection methods. At the two schools using ManageBac, students were submitting reflections in writing, as well as by YouTube clips and other media. This is important inasmuch as prior research recommends that reflection should occur through different methods. Second, it streamlines the feedback process between students and advisors/teachers, and between teachers and coordinators. Because of the limits of time and physical space, paper-based reflections necessarily require considerably more effort. With ManageBac, that process is considerably streamlined—making it easier for advisors to give feedback.

The two schools in our study that utilized ManageBac had rather robust, well-developed programs that encouraged participation of more teachers as CAS advisors, but that is merely a relationship of correlation. Other schools had aspects of reflection implementation that were very strong—in the way, for example, that students and advisors interacted verbally, or reflection essays.

Based on my analysis, however, it is clear that ManageBac only works well if it is implemented adroitly by advisors and coordinators. It is only a tool, and as such can be used effectively or ineffectively. The wide range of quality of student reflections on ManageBac—paralleling the range of quality of student reflections found at schools that do not use ManageBac—show that if students are not given the proper guidance, support, and feedback throughout their time in the CAS program, then no amount of technology will encourage or sustain authentic reflection.

CHAPTER 5: CONCLUSION

Major findings

In regards to the results obtained for the first two research questions about how CAS reflections are implemented and the trends across schools, two primary factors may account for the variability between schools—why some are more successful than others at implementing reflection in the CAS program. Firstly, and most prominently, is the knowledge, ability, and character of the CAS coordinator. Certain of the coordinators I interviewed appeared as sort of CAS "champions": they fully understood and supported the mission and methods of the CAS program in general, and reflection specifically. Consequently, they put in place reflection systems that aligned with their expectations to support experiential learning within CAS. Other coordinators seemed less enthusiastic about the mission and methods of CAS—nor did they seem to fully grasp the nature and purpose of reflection. These coordinators focused more on the activities themselves—and the extent to which students were engaged in sufficient and diverse activities—often to the detriment of reflection.

The second most important factor was the nature of a school's CAS "culture"—that is, the extent to which the students, teachers, and—to a lesser degree—parents bought into the mission and methods of CAS in general, and reflection specifically. At schools with stronger CAS cultures, there was a better understanding of the purpose of reflection, according to comments from students and teachers. For example, some teachers talked of engaging students in reflection in order to develop

better understandings about CAS activities. At School 3, multiple teachers were quite enthusiastic about the "CAS panel" as a reflective activity. At schools with weaker CAS cultures, however, comments from students and teachers showed that they had an incomplete appreciation of the role of reflection within experiential learning.

Regarding third and fourth research questions about CAS forms and ManageBac, the results of my analysis of documents as well as ManageBac can possibly be attributed to the following factors. Firstly, as to the weakness of the reflection forms used a many of the schools, with only a single CAS coordinator at five of the six schools, the sheer number of reflections was a considerable burden: generally, a coordinator is meant to coordinate teachers as advisors to read and give feedback to a student's reflections; however, in most schools the CAS coordinators themselves were assuming this role. With the smallest Diploma Program serving 64 students, a large part of a coordinator's job was thus given to dealing with student reflections. Perhaps as a consequence, coordinators developed ineffective reflection "forms" which streamlined the process, at the expense of the authenticity and depth of student reflections.

However, the relative effectiveness of the periodic reflection essays was due, in part, to the fact that students were engaging in such reflections less often—typically twice a semester. Most of the surveyed schools had requirements for regular reflection—at least on a weekly basis, if not more often. This is contraindicative to the recommendations of both the CAS Guide (2015) as well as the literature on reflection in general. Both the Guide and the literature indicate that reflection should not be "forced"—rather that students should engage in reflection more spontaneously, for example, before or after significant events occur during a CAS activity. Having required submissions takes away from the authenticity of reflection. The essays,

which are required less often, tend to lead to more authentic reflection because a student has the opportunity to consider significant moments and ideas from an activity over weeks or months, rather than considering only the past few days. In this way, the student can focus (reflect) only on the events and ideas that were more meaningful or catalytic.

As for verbal reflection, both students and teachers expressed generally positive opinions about its function as reflection—even if many students did not understand it to be such. This can perhaps be attributed to the spontaneity of the interactions between students and advisors: there were few cases of students being "required" to reflect verbally advisors. Rather, these interactions happened organically during the course of a given activity. Advisors mentioned, for example, discussing events with students after a day of volunteering; and students at some schools mentioned how often they interacted with their CAS activity advisors. These spontaneous interactions can lead to more authentic reflection because students focus on the significant events that occurred, or will occur, during an activity. Furthermore, the discursive nature of verbal reflection lends itself well to feedback: a student can comment on an event, and the advisor can immediately question the student's comment, and probe for deeper reflection.

ManageBac was a relatively successful tool for the two schools that utilized it. It definitely facilitates the communication process about reflection: the ease uploading a video or a written document mitigated some of the logistical barriers of analog forms and documents. However, the success of ManageBac in this context is more attributable to the schools themselves: the CAS programs were strong, and lead by capable coordinators. Consequently, in terms of making a judgment about the platform, it is harder to separate the characteristics of the ManageBac from the

characteristics of the CAS programs in general. In short, strong coordinators and strong CAS cultures also had the most important requisites for strong reflection implementation, regardless of the means.

Implications for practice

I have developed a number of recommendations to improve the implementation of CAS programs. These recommendations are based on both the prior research that has occurred in the field of social-emotional learning, as well as the successful elements of CAS programs observed at the six schools in our study.

Recommendation 1: Use pre-reflection as a roadmap and measurement tool

Firstly, at the beginning of the two years of the CAS program (typically at the beginning of grade 11), students should write a pre-reflection. (It is important that it be written, because it must be easily referred to, and addressed, at later dates.) This pre-flection should contain two primary components:

1. An assessment of one's strengths and weaknesses vis-à-vis the now seven learning outcomes and the three elements (Creativity, Action, and Service) of CAS. Some students may recognize that they are stronger in the areas of, for example, teamwork and social skills in the context of sports (Action), while being weaker in the terms of awareness of "issues of global significance" and of socio-economic differences in the context of volunteering (Service). This leads into the next component:
2. Based on the student's self-assessment of strengths and weaknesses, she will establish goals which she intends achieve through her activities in the CAS program. Using the aforementioned fictional student, she is already strong in sports and collaboration, so should design goals to help her improve in the

areas of, for example, Service and global awareness. This is important because CAS places emphasis on the fact that students should be taking risks, expanding their boundaries, and growing holistically. It is important that these goals be designed using a framework similar to the infamous SMART goals—namely, that the goals be Specific, Measurable, Attainable, Relevant, and Time-bound (Haughey, 2014). SMART goals are particularly important in the context of CAS because it is very easy to say, "I will become a better volunteer," or "I will be more aware of global issues." While noble in intention, such goals are almost impossible to measure or achieve, and thus they have little utility for self-assessing.

The purpose of this initial pre-reflection is two-fold. First, to serve as kind of a road-map for a student's CAS experience. Based on the goals that she has established for herself, a student can plan and develop activities that will help her to achieve those goals. Second, the pre-reflection is useful as a means of assessing a student's success at the end of the CAS program. The student can look back on her SMART goals and determine whether or not she was successful in achieving them. In the nebulous realm of social-emotional learning, it is often hard to really recognize personal growth. This kind of pre-reflective activity, thus, would be useful for helping students to see how they have grown and developed over the course of two very important years of their lives. It is also useful for CAS coordinators in their assessment of a student's success—or lack thereof—in achieving the learning outcomes. It bears repeating that a student must "pass" CAS (by achieving the learning outcomes) in order to receive an IB Diploma; thus this pre-flection essay can be useful in helping Coordinators, or CAS panel members, make that important judgment.

Recommendation 2: Exercise flexibility in the timing of reflections

As the data in our study have shown, the schools in our study were mostly successful at utilizing reflection before, during, and after CAS activities, and this should be continued: it is important for reflection to be embedded within CAS activities, and not outside of it. It terms of the frequency, however, most schools also had expectations in terms of how many reflections a student should be completing during a particular semester, say. The CAS Guide (2015) and prior research both have suggested that forcing students to do reflection detracts from the efficacy and authenticity of reflection. To wit:

> Students are not expected to reflect on every CAS experience; they should identify moments worthy of reflection. Reflection is most meaningful when recognized as a personal choice. If the emphasis is on quantity with a required number of reflections or with a requirement such as 'students must complete a reflection for every CAS experience', reflection becomes an obligation, which is contrary to the purpose of reflection in CAS. (p. 27)

This was borne out in student comments: they often felt that reflection was primarily an obligation, and not a meaningful exercise related to their activities. The CAS coordinator at School 6—a successful CAS program in terms of its reflection process—noted that she neither required nor expected students to reflect on a regular basis. This should be the case for other programs as well. There should be some kind of strictures in place ensuring that students do indeed engage in reflection on a somewhat regular basis. However, reflections would be more authentic if Coordinators and advisors developed an environment or culture of reflection within which reflection is encouraged, but not demanded, and students understand the utility of reflection, thus they engage in it of their own volition.

Furthermore, as the reflections should be fewer in number, they should concomitantly be deeper and more thoughtful—that is, more authentic. One or two

truly authentic (and long) reflective works are significantly more useful than twenty rudimentary reflections. Depth and authenticity should be the rule, rather than frequency and regularity. This is particularly true for ManageBac which, through its format, tends to encourage many brief and shallow reflections. CAS coordinators would do well to modify how ManageBac is used to facilitate reflection.

If the students really need some kind of structure, then I would recommend the students complete a kind of culminating reflection at the end of each semester, as demonstrated well by Schools 5 and 6 [??]. They choose whatever format they wish (video, presentation, essay, and others) and develop a reflection that covers the CAS learning outcomes as well as the three domains (C, A, and S). This would naturally be a reflection of more substance and depth because the student should be considering all the experiences and lessons of the past four months. Furthermore, these reflections should be composed in light of the goals that the student created in her original pre-reflection document. Each semester, she can evaluate to what degree she has been moving toward achieving her goals.

Recommendation 3: Use a wide variety of means for reflection

It is very important that students be encouraged, and given opportunities to do reflection using a variety of means or methods. Two of the CAS programs in our study did just this, and they were also among the most successful programs. It is the conventional wisdom in pedagogy, in general, to allow students different means of learning, as per Howard Gardner's theory of multiple intelligences (1983). Different students have different intelligences and, as such, they should be given opportunities to learn and be successful through different means. This extends, as well, to reflection: some students are simply able to better express and understand themselves through writing, or speaking, or interaction, or other means. Forcing students to

reflect using only writing—which is, by far, the most common method among the six schools studied—naturally inhibits many students in their possibilities of internalizing the social-emotional lessons of experiential learning. According to the CAS Guide (2015, p. 28),

> Student reflection may be expressed through a paragraph, a dialogue, a poem, a comic strip, a dramatic performance, a letter, a photograph, a dance, a blog, or other forms of expression. Students find greater value and purpose when they apply their own interests, skills and talents when reflecting. They discover that reflection can be internal and private or external and shared.

It may seem as though I am simply repeating, with my recommendations, the guidelines found in the CAS Guide. However, our research has shown that some schools simply are not yet heading these guidelines. To an overwhelming degree, most reflection happens via the format of a written journal. This is not to say that written/journal reflections are not authentic or effective—much to the contrary. Rather, that they should be used as one method among a number of methods, dependent on the personality of a student and the context of the activity.

Recommendation 4: Establish the meaning and importance of reflection

Our research showed that many students were confused about the very meaning and purpose of reflection—they thought of it as a sort of mix of evidence (of participation), a record of what happened, and also reflection. At School 4, for example, the "reflection forms" asked for a very brief reflection, the number of hours of participation, and a signature from an adult—supervisor or coach—verifying participation in the activity. It is no wonder, then, that students had a low opinion of the reflection process—they perceived it less as an opportunity for growth, and more as just another requirement of their CAS program. While this school also used journals, students had very little to comment either on their learning from the journaling process.

As such, CAS coordinators should clearly delineate reflection from other types of documentation. It is perfectly acceptable to require evidence of participation (a few students indicated that occasionally students cheat by "making up" phony CAS experiences). However, it should be clear to students that reflecting on an experience is separate from documenting verifying the experience. Documentation should be collected almost daily, but reflection can be fortnightly—or less frequent. Regardless of the frequency, students should have a clear idea about the meaning and purpose of reflection, as unique from other CAS documentation requirements.

This is a particular issue for ManageBac—its platform blurs the meaning of evidence and reflection. On a given activity page (as described in Chapter 4), there is a tab/link for "Reflections." Within this section, it is expected that students will upload photos as a means of evidence, as well as record the type and content of the experience, the number of hours, and—lastly—write a reflection about the experience. From what I have seen of the sample "reflections" from schools using ManageBac, this kind of format does not encourage authentic reflection. Rather, students see reflection more as a regular kind of record to simply document their CAS experiences.

Recommendation 5: Integrate regular feedback from advisors

Students submit many reflections over the course of two years, and at all of the six schools, the responsibility of providing feedback on these reflections belonged primarily to the CAS coordinators. Feedback is, of course, necessary for helping students to improve their reflective skills as well as achieve insights. However, with the many responsibilities weighing upon the beleaguered head of a CAS coordinator, it becomes quite difficult to provide meaningful feedback to students. Therefore, I recommend that CAS advisors (as distinct from coordinators) bear more responsibility in giving feedback to students. This is for three reasons. First, the CAS

coordinator is just one person, and the advisors are many—and many hands make light work, further freeing the CAS coordinator to focus on the other logistics of the program as a whole. Second, an advisor has a much better understanding of the specific activity that her students are engaged in—for no other reason than she is the one tasked with overseeing and helping to manage the given activity. As such, the advisor is in a much better place to give feedback about that activity. Third, an advisor has a lot more contact time with students, thus she is more available to give feedback. At School 5, for example, students have weekly club hours at which they can discuss their activities with the advisors.

In some schools, to implement this recommendation, CAS coordinators would need to meet early each year with at least the teacher who are likely to be CAS advisors to discuss and encourage the feedback process. CAS coordinators could perhaps also share with the advisors a copy of that students' pre-reflections, so that the advisors could help with monitoring goals by knowing their advisees better.

Recommendation 6: Concluding the CAS program with greater emphasis

The CAS programs I observed tended to end (at the end of grade 12) with a whimper, instead of a bang: students confirmed that they had achieved the outcomes, completed the requisite documentation, and thus passed CAS. However, School 3 went one step further with their CAS Panel. It was a sort of capstone to the whole program; a way of encouraging students to look back and consider everything they had done over the course of two years. Finally, in giving students a forum to summarize and voice their thoughts about CAS, it gave the students a sense of closure to their whole CAS experience. This CAS Panel—or some facsimile whereof—should be a part of every CAS program. When I visited School 2, the CAS Panel had only been in place for a year, but students, teachers, and the CAS

coordinator all talked about it in glowing terms. The CAS coordinator saw a sort of sea-change in the attitudes of her students: suddenly, she said, they realized that they had to give an accounting of themselves to a panel of respected adults. This had the effect of motivating students to make CAS a more meaningful and fruitful experience. In terms of reflection specifically, the Panel was very effective in getting students to think deeply and authentically about the overall value of their two years of CAS.

Implications for further research

There are a number of directions in which this current research leads. As an implementation study, it is a good first step—having established how schools are implementing reflection in CAS, as well as extracting some general trends about that implementation. The next steps beyond this study should attempt to address more specific questions about the effectiveness of the various methods of implementation. One study I recommend is similar to a study by Harland and Wondra (2011), in which they objectively analyzed the quality and depth of reflection samples. In the context of CAS, this would require that, first, a relatively large sample of reflections be gathered, roughly representative of the student reflections as a whole. Those reflections would then be coded according to depth and authenticity: for example, description coded as "not reflective", and questioning one's choices coded as "deeply reflective." After gathering and collating the codes, a relatively objective quantitative analysis can be made as to how authentic are student reflections from a particular context method, and which outcomes do they demonstrate most strongly.

More ambitiously, there is the possibility of designing a pre- and post-test study that measures the effectiveness of a professional development course to be designed for helping CAS coordinators and advisors to improve the CAS program school-wide.

Essentially, a course would be created—based on some of the suggestions coming from this research—that would train Coordinators and advisors in the implementation of CAS programs, with particular focus on effective student reflection. A test would be administered before the training: measuring, perhaps, the depth and authenticity of student reflections; or attitudes about the reflection process. The same test would be administered after, say, one year—measuring, of course, the same parameters as the pre-test. In such a way, it can be determined the extent to which the professional development course was successful in helping schools improve reflection within their CAS programs.

Limitations of the study

The primary limitation of this study is the number of schools where stakeholders were interviewed. The geographic and logistical difficulties of Turkey allowed for visits to only six DP schools (out of the total of thirty-four). However, these schools are nonetheless representative of I.B. schools that are leading the way for the I.B. in Turkey. Furthermore, these six schools are located in the larger cities of Turkey; there are a few IB schools in smaller communities, or in eastern Turkey, that would perhaps contribute unique voices to future research. On a personal level, I teach in the Diploma at an IB school in Turkey, so my perspective is partially informed by my experience with the students, and other stakeholders, at my school.

A further limitation of this study is temporal: Our research team was only able to visit each school for one day. Although I gathered many interviews from different stakeholders, the data would perhaps be more robust and comprehensive if I had been able to interview individuals at multiple times during the school year.

The process of choosing schools for the study was nonrandom: I used a method of purposeful sampling wherein representatives from one school would recommend

amenable individuals at other schools. Although the schools are still representative of the IB and CAS in Turkey, a more randomized selection of schools would perhaps produce more representative results.

In terms of the document analysis, I was only able to do a basic analysis based on the extent to which reflection methods affected student products. One limitation is that it would be much more comprehensive to develop a coding procedure with which to more quantitatively determine the quality of reflections being developed by different methods at different schools. However, the scope of such an endeavor is considerably beyond this current study, so I leave it for future researchers to pursue.

Another limitation of the document collection and analysis is that I did not have the opportunity to gather documents representative of different periods of time—I received documents only at the time of my school visits.

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APPENDICES

Appendix A: Student focus group protocol

Research of the CAS Program in IB Schools

CAS Student Focus Group Protocol

Fall 2013

Hello, we are _____. Thank you for meeting with us today. We are here to learn more about what kinds of things you do in the CAS program and what you think about it. Your school is among the six that are part of this study to take a closer look at your experiences in the CAS Program. ***It is important that we get a chance to hear about your experiences directly from you, so your willingness to participate is a great help and will provide important information. We hope each of you will speak openly today, but you don't all have to answer every question.***

Your answers will remain confidential and we will report findings from our conversation in the aggregate. No names will be shared with any of your teachers or the principal.

Consent: Before we begin, we need to have a record that you understand that this discussion group is part of a study and you agree to participate. Please take a moment to read over your permission form and let me know if you have any questions. [Collect signed forms.]

We would also like to audio-record this discussion make sure we heard everything correctly. Do I have the group's permission to tape this conversation?

Before we start our discussion today, let's go around the room. Please say your name, your grade, and something that you love to do outside of school.

1. Tell us about the CAS program in this school?
    a. How do you work with your CAS Coordinator to plan for a project?
    b. How often do you meet?

c. How do you share what you learn (in presentations, in reports, in logs or journals that you share with the CAS coordinator, etc)

2. What are you currently doing for CAS? How did you develop the project you are currently working on?
   a. What was your goal?
   b. What are you learning from your project?
   c. What have been some difficulties?

3. What do your parents think about the project you are working on?

4. Who do you go to when you have questions about the projects or activities that you are working on other than the CAS coordinator [state name of the CAS coordinator]?

5. How do you think you are helping your school or your community with the project you are working on?

6. How do you think you are improving yourself by participating in CAS?

7. What is the purpose for you of the ***reflections***? Do the reflections affect your experience of CAS? Have you received any feedback about your reflections? Overall, are your reflections useful for you? Why or why not?

8. Tell us one thing you like about the CAS program in this school?

9. If you were to change one thing about the CAS program, what would that be?

Thank you very much for your time!
Zaman ayırdığınız için çok teşekkürler!

Appendix B: Teacher focus group protocol

Research of the CAS Program in IB Schools
CAS Teacher Focus Group Protocol
Fall 2013

Hello, we are _____. Thank you again for taking the time to talk with us regarding the CAS Program. Your school is among the six schools that are part of this study to take a closer look at your experiences in the CAS Program.

The purpose of this focus group is to understand your perceptions of how the CAS Program is being implemented at your school. Your responses will be used to help inform the descriptive research and to give us a sense of what the CAS Program looks like on the ground. ***Our focus will be your practices, supports available to you, and your perceptions of CAS outcomes.***

This meeting should take approximately 60 minutes. [Can anyone stay longer if needed?] Information from this focus group and other data we collect from your school will be included in an oral report that we will submit to your school. In our reporting of findings, you will <u>not</u> be individually identified by name or position. The report will provide aggregate information on the school. All your responses will remain confidential and we will <u>not</u> share your responses with any of your program administrators.

We will be taking notes as we talk and would also like to tape-record our conversation to ensure accuracy. ***Do we have your permission to tape-record this conversation? [Need signed consents.]***

Since we will be relying on our tape-recording to clean up our notes, please state your first name when you answer a question and share your thoughts.

This is a group conversation so we will also ask everyone to feel comfortable to share your thoughts and <u>add comments freely but not to interrupt each other</u>.

1. Briefly describe how CAS looks in your school. [Probe: Anything else to add or amend?]

2. How important is the CAS Program for your school? How visible is the CAS Program in your school?

3. Who are the key people involved in CAS (e.g. Administrators, parents)? Who guides the program? (e.g., project coordinator, project team, administrators)

4. When you start each year, which CAS objectives are emphasized as you introduce CAS to students? Why these?

5. ***How do advisors/teachers support students in their plan/act/observe/reflect process?***

6. **In what ways have you attempted to integrate the CAS program with other school curricula?**
    a. **How well has this integration worked?**
    b. **What challenges does it present?**

7. What kinds of supports do teachers/advisers have to help implement the CAS Program in this school?
    a. How were you trained on the CAS Programme? Any follow-up support after the trainings? From whom? How helpful is this support?
    b. How do you work and learn with other teachers in the school on CAS?

8. To what extent are you working with or learning from partners such as parents, teachers from other schools, or community organizations?

9. ***How would you describe the barriers (challenges) for implementing the CAS Programme?***
    a. ***Probes: School climate? Resources? Program requirements? Admin & parental attitudes?***

10. ***What do you consider as the most significant outcomes for the CAS programme? Evidence?***
    a. ***Probes: How does CAS participation help the students? The school? The wider community? Any particular success stories?***

11. ***What do you think other teachers think about CAS? Have you heard any views different from those expressed in this focus group?***

IF TIME: Summarize key points or themes that came from this group.

12. Are there any other things that you'd like to share to help us understand CAS in your school?

Thank you very much for your time!
Zaman ayırdığınız için çok teşekkürler!

Appendix C: Interview with CAS coordinator

Research of the CAS Program in IB Schools

CAS Coordinator Interview

Fall 2013

Thank you again for taking the time to talk with me regarding the CAS Program. This interview should take approximately 60 minutes. The purpose of this interview is to understand your thoughts and perceptions of how CAS is being implemented at your school. Information from this interview and other data we collect from your school will be included in a brief report that we will share with your school. In our report of findings, you will not be individually identified, nor will the school be identified.

I would like to tape record our interview in order to accurately capture everything you tell me. Do I have your permission to record this interview with you?

INTERVIEWER: [If Yes, turn on voice recorder and proceed.] I am here with [respondent name], at [program name], and today is [name of day, month, and date]. "Do I have your permission to record the interview?"

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1. **Describe the CAS program in your school:**
    a. What are the goals? Do you focus on some goals more than others? If so which ones?
    b. How many projects do you (&/or other CAS advisors) supervise per semester?
    c. How often do you meet with students?
    d. What is the average number of hours students are involved per semester?
    e. How do students reflect on their experiences?

2. Is there a focus of the CAS Program in your school? (e.g., community-based, school-based, sport-oriented)

3. **How do you communicate about the CAS Program to your faculty and staff? Community members and families?**

4. **How motivated are teachers to support the CAS program? Do they ever link it to their instruction? How does this vary across the school? Why?**

5. ***As the CAS coordinator, what kinds of supports are available to you? [Previous Q-10]***

6. How do you support other faculty or staff in helping students to achieve their CAS goals?

7. What kinds of resources are available to faculty and staff to implement CAS? Consider the time, materials, and guidelines that are available.

8. To what extent are you working with partners outside the school to implement CAS?
   (Probe: Consider community partners, other schools and/or local business partnerships)?

9. What do you think regarding whether CAS projects should be short-term or long-term? How do you support students in this decision?

10. Are professional development opportunities available to you or other teachers this year to support CAS? If so, what kind of opportunities? How many teachers have already attended these opportunities or will attend?

10b. To what extent are you or other teachers applying the content and strategies they learn in these PDs? How do you know? (Probe: How do you determine that teachers are implementing the new content and strategies?)

<By mid-interview, jump to here… if not enough time for all questions, some can be followed up later…>

11. What are some of the strengths of the CAS program in your school?

12. What are some challenges? How did you address them so far?

13. How would you describe the impact of CAS on students? On teachers? On the community?

13b. To what extent do the student reflection reports help you to monitor the value of this program for their learning process? Do you do anything to help students learn to improve their capacities for reflection and self-observation in the context of CAS? *How do CAS advisors/teachers support students in their plan/act/observe/reflect process?*

13c. Over the course of the 2 year Diploma Program, do you notice any trends in the content, quality, or anything within the student reflections?

14. What are your goals for CAS next year that might be different than this year?

15. How would you plan on using the data we gather from this research? [Your response to this question will help us to customize our reporting for your school.]

16. Is there anything else on the CAS program you might like to share that we did not cover?

Thank you very much for your time!

Zaman ayırdığınız için çok teşekkürler!

AT THE END OF THE DAY: With CAS Coordinator, be sure to give time at the end of the day for closure, and thanks. Ask for permisison to contact again in the semester ahead if we have any additional questions.

Appendix D: Interview with school administrator

Research of the CAS Program in IB Schools
Administrator Interview
Fall 2013

Thank you again for taking the time to talk with us regarding the CAS Program. This interview should take approximately 45 minutes. The purpose of this interview is to understand your thoughts and perceptions of how CAS is being implemented at your school. Information from this interview and other data we collect from your school will be included in a presentation (Powerpoint) in Summer 2014. In our reporting of findings, you will not be individually identified.

I would like to tape record our interview in order to accurately capture everything you tell me. Do I have your permission to record this interview with you?

INTERVIEWER: [If Yes, turn on voice recorder and proceed.] I am here with [respondent name], at [school name], and today is [name of day, month, and date]. "Do I have your permission to record the interview?"

1. Describe the instructional strategies that are implemented in the school as part of the CAS Program

2. Is CAS aligned with any other initiatives or instructional models used in the school?

3. When you consider the components of Creativity, Action, and Service within the CAS program, are any of these 3 components more emphasized than the others in your school?

4. How does the school integrate CAS with the MEB Curriculum?

5. How are expectations about CAS communicated to teachers?

6. How do you communicate about these expectations with the parents?

7. To what extent do you support/encourage your CAS coordinator to develop partners outside the school? (Probe: Consider community partners, other schools and/or local business partnerships)?

8. Overall, what do teachers think of the CAS program in your school? How about students? How about parents? What about the wider community?

9. What kind of supports are available to the CAS Coordinator or other teachers in your school to support or improve their skills for delivering CAS effectively?

10. What percent of teachers are participating in these opportunities?

11. How does your school monitor how CAS is being implemented?

12. What are some of the strengths of the CAS program in your school?

13. Can you tell me a success story about a CAS initiative?

14. What are current challenges? How are you addressing these challenges?

15. Do you have any plans for your CAS program next year that may change how it is currently implemented?

16. How would you plan on using the data we gather from this research? [Your response to this question will help us to customize our reporting for your school.]

17. Is there anything else on the CAS program you might like to share that we did not cover?

Thank you very much for your time!
Zaman ayırdığınız için çok teşekkürler!